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Activity and Workbooks of Ministry of National Education: Preschool Teachers are Evaluating

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Abstract

The book sets “Preschool Education Activity Guidebook” for teachers and “Let’s Join Hands for Preschool Education” for children have been provided by the Ministry of National Education to all preschool education institutions since 2017 in order to provide high-quality preschool education, to help teachers develop different perspectives, and to discourage both students and teachers from using unreliable or inappropriate sources of information. The aim of this study was to determine the effects of the book sets on teachers and children. Phenomenology, which is qualitative research design, was used. The sample consisted of 24 preschool teachers from different educational institutions. Data were collected using interview forms created in Google Forms. Data were analyzed using second-cycle coding, which is inductive content analysis. Many participants are satisfied with the activity guidebooks and use them to develop different perspectives, to improve themselves, and to be more productive for their students. Teaching experiences and classroom materials affect the way they use the activity guidebooks. Although the book sets have some negative effects, they are guides for both teachers and parents. Participants think that the book sets are useful for education planning and process management but that different variables should also be taken into account when integrating them in education and that all available resources should be used to achieve professional development.

Keywords: Preschool education, activity guidebooks, children’s workbooks, preschool teachers, children

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Introduction

The period from birth to primary education is referred to as preschool period. During that period, rapid development and learning take place, and children discover their potential, acquire knowledge, and develop positive attitudes and cognitive, social/affective, linguistic, and motor skills, which are believed to be core life skills (Ministry of National Education, 2013; National Association for the Education of Young Children, 2009). From early ages, children should be provided with a rich environment to allow them to express their feelings and thoughts and develop vital social and cognitive skills which they will put into practice in the future (Karademir et al., 2020).

Research shows that children who have received early education are likely to have better academic performance (Campbell et al., 2002; Kağıtcıbaşı et al., 2005), be employed in the highest paying occupations, and engage in criminal activity and benefit from social support less than those who have not received early education (Schweinhart et al., 1993). Supporting development from early childhood on should be seen as an investment not only in the individual but also in society (Karademir et al., 2017). Therefore, preschool education is economically and strategically important for nations. The success of national education depends on the quality of education programs. The more detailed and comprehensive an education program, the better its outcomes (Karademir & Ören, 2020). Therefore, only high quality education programs can ensure healthy growth and development, promote positive social and emotional experiences, provide children with rich linguistic stimuli and keep them engaged in learning (Ministry of National Education, 2013).

Results of rigorous research in the preparation stage should be tested and scaled up into policies to make sure that education programs benefit all interested stakeholders in practice. Ministry of National Education revised the Preschool Education Program (PEP) in 2013-2014 academic year and put to use in all preschool education institutions in Turkey for the purpose of providing children with rich learning experiences, supporting their development from a holistic perspective and increasing their readiness to primary education (Gürkan & Koran, 2014; Ministry of National Education, 2013). In the following years, the Ministry of National Education took more steps to promote the current preschool education program and its implementation in institutions. Within the framework of the Tenth Development Plan within the scope of preschool education objectives in 2017-2019 Medium-Term Program and Ministry of National Education Strategic Plan, the Ministry of National Education first adopted as a primary strategy to provide at least one year of preschool education to all children who were to start primary school the following year (2017) and then focused its efforts on providing in-class educational materials to promote preschool education for disadvantaged children. The Ministry of National Education also took into account the monitoring and evaluation of results, feedback from school administrators and preschool teachers, children's interests and needs, and common errors in practice and then prepared the book set "Preschool Education

Activity Guidebook” (PEAGB) as a guide for classroom practices to make sure that teachers can put the preschool curriculum into practice in the best possible way. Apart from the Preschool Education Activity Guidebook, the Ministry of National Education also prepared a three-volume workbook set “Let’s Join Hands for Preschool Education” (LJHPE) for children. Lastly, the Ministry of National Education distributed the book sets to eight thousand teachers and 189 thousand preschoolers of the educational institutions in 37 cities (including Muş) in the 2017-2018 academic year to conduct a pilot study on their effectiveness (Ministry of National Education, 2017).

Such national-scale efforts have been made to improve preschool education designed for children aged 0-6 years and to enable preschool teachers to better manage teaching as they play a key role in making sure that children go through this sensitive period in the most efficient way (Coşkun, 2007). Therefore, the PEAGB supports the preschool education program and help teachers develop, implement, and evaluate activities. The PEAGB is designed to help teachers come up with activities appropriate for their students and convey educational content to them and, in turn, help students build meaningful relationships between knowledge, skills, and ideas (Ayvaci & Ernas, 2009; Köseoğlu et al., 2003). Therefore, the authors thought it would be useful to focus on the PEAGB developed by experts for both preschool teachers and children. The state allocated a considerable amount of money from its budget to have the PEAGB developed for teachers and children by the Ministry of National Education as an investment in the future. It is, therefore, important to look into the characteristics of the guidebooks for further evaluation. Table 1 shows the details of the PEAGB activities.

Table 1. PEAGB Activities

Contents	Activities/Skills	<i>f</i>
Activity Type	Art	193
	Turkish	143
	Play	117
	Science	79
	Math	79
	Preparation for reading and writing	45
	Music	42
	Drama	35
	Movement	22
	Field trips	12
	Total :	767
Activity Setting	Integrated large group activity	274
	Large group activity	40
	Integrated large and small group activity	35
	Small group activity	4
	Integrated Small group activity	2
	Individual Activity	1
	Total :	356
Target Skills	Cognitive	280
	Linguistic	220
	Motor	206
	Social/Affective	184
	Self-care	44

The PEAGB has ten types of activities (Turkish, play, science, math, preparation for reading and writing, music, drama, movement, and field trips) performed in six different ways (integrated large group, large group, integrated large and small group, small group, integrated small group, and individual activity). The target skills of the PEAGB are cognitive, linguistic, motor, social/affective, and self-care skills. (Table 1).

The three-volume LJHPE was first introduced to 189 thousand preschoolers in 37 cities in 2017 and then to preschoolers across the whole country. It is a colorful and interesting workbook that helps students go over on their own all 2013 PEP concepts (maximum three times of repetition per concept) that they have learned in classroom activities performed under the guidance of teachers (Ministry of National Education, 2019).

Both teachers and preschoolers use materials other than books during learning. Numerous studies examine the effects of materials on users (Cain, 2011; Lillvist et al., 2014; Marklund, 2015; McBride et al., 2006). However, there is little research on the effects of books on children. There is also no research in Turkey on any written sources related to the program, except for some studies focusing on reading books designed for preschoolers (Çatalcalı Soyer, 2009; Tercanlı Metin & Gökçay, 2014; Veziroğlu & Gönen, 2012). Therefore, more research is warranted to investigate the effectiveness of the PEAGB and LJHPE as they are of paramount importance in preschool education.

Teachers are responsible for implementing curricula. Therefore, their views should be analyzed to determine how successful the newly introduced nationwide educational movement is. The aim of this study was, therefore, to determine teachers' views of the PEAGB and LJHPE which they have been using for three years. To our knowledge, this is the first study to address the issue, and therefore, we believe that it will make a significant contribution to the literature.

Method

This study employed phenomenology, which is a qualitative research design used to determine subjective perspectives and experiences (Yıldırım & Şimşek, 2012). Perception of life is based on subjective experiences of phenomena and their interpretation. Phenomenological research deals with how we bring together the facts that we experience in understanding the environment (Patton, 2002/2014).

Participants

Data were collected online due to the nationwide school closures and restrictions on social contact during the COVID-19 pandemic. Questionnaires were prepared on Google Forms, and an electronic link was sent to all participants recruited using snowballing sampling. Participation was voluntary. The sample consisted of 24 preschool teachers (19 females and 5 males) from kindergartens ($n = 8$) and kindergartens of primary schools ($n = 6$) in the districts of Muş. The mean age of

participants was 31.5 years. Fourteen participants had a preschool education high school degree while ten had an associate's degree. Sixteen participants had 15 years of work experience. Eight participants had 0 to 5 years of work experience, and four of them were recently appointed to their positions. Thirteen participants worked with children 60-69, seven with 48-60, and four with 36-48 months of age.

Data Collection

This study aimed to address in what way the PEAGB and LJHPE affected education. A scale was prepared on Google Forms. First, scope and content were determined. An item pool was developed by the researchers, and then, the items were examined by a measurement and evaluation specialist, two field specialists, and a language specialist. The scale was revised based on their feedback.

Data Analysis

Data were converted into codes, which were then used to develop subthemes and categories based on literature review and participants' statements. Data were analyzed using content analysis (Krippendorff, 2013). Data were analyzed using second-cycle coding, which is used in qualitative research (Miles et al., 2014). In the first cycle, the researchers coded some of the data separately and then compared them to develop themes and categories. They discussed the codes and developed new themes and categories to make them conceptually dense and free from biases and assumptions. In the second cycle, they used constant comparison to code the remaining data (Corbin & Strauss, 2008). They used the QSR N-Vivo 12 to develop themes and sub-themes and then interpreted and expressed the findings. To achieve reliability, they consulted a different expert who had experience in the field to check the codes and themes. They discussed the codes and themes based on expert feedback and reached a consensus and then finalized them and presented them in Tables.

Results

This section presented the themes, subthemes, categories, codes, and sample quotations in Tables. The comments section addressed the details of the interviews to provide an accurate and coherent picture of participants' views and to allow readers to easily analyze and interpret the findings. Table 2 presents the participants' views of the PEAGB.

Table 2. Effects of PEAGB on Teachers

Theme	Category	Codes	Quotations
Psychological	Positive Emotions	Self-confidence (N=16)	<i>I generally use the guidebook on weekends, I mean, I use it to plan my week. I compare the activities in it with mine, and I feel more confident when I see that they are similar (T15).</i>
		Efficiency (N=14)	<i>It's very important to me to have productive classroom activities. I use the guidebook to improve their efficiency (T4).</i>
		Relief (N=12)	<i>The guidebook saves me a lot of time. I use it, when I have a hard time finding an activity, and I feel relieved</i>

			<i>when I find one in it (T16). When I feel overwhelmed, I tell the students to do some activity on the workbook, so I get a chance to relax a little bit while they work on it. (T12).</i>
		Curiosity (N=10)	<i>I use the guidebook with great curiosity. It has a lot of interesting activities (T2).</i>
		Satisfaction (N=10)	<i>I get the students to do my favorite activities in the guidebook. It comes to my rescue when I have a hard time coming up with an activity, and it makes me happy when I find one in it (T9).</i>
		Pride (N=9)	<i>I feel proud when I see that the activities that I come up with are similar to the ones on the guidebook prepared by experts (T23).</i>
		Inspiring (N=9)	<i>They are really great activities, they inspire me (T13).</i>
		Courage (N=8)	<i>It encourages me to see that I can use a lot of different materials and do different activities, and so, I try them right away (T21).</i>
		Idealism (N=5)	<i>I like trying new things, kids get bored of doing the same stuff, and so, I want to keep doing different things to improve both myself and my students (T11).</i>
		Innovativeness (N=4)	<i>I look at their faces and if I see that they are tired of doing the same activities over and over again, I check the guidebook to find something we haven't done before (T8).</i>
	Negative Emotions	Dissatisfaction (N=10)	<i>I checked some of the guidebook activities and saw that they are pretty much the same as what we already have, so, it has nothing new, I think it's just a waste of paper (T5).</i>
		Reduced motivation (N=9)	<i>Some teachers have everything, and when I check the guidebook, I see that we don't even have the most basic materials and resources, which gets me down (T18).</i>
		Idleness (N=9)	<i>I think that ready-made activities make us lazy (T10).</i>
		Unproductiveness/inadequacy (N=8)	<i>I feel inadequate when I see that I've never been able to come up with some of the activities in the guidebook (T2).</i>
		indifference (N=7)	<i>I think that teachers are responsible for coming up with activities, I mean, if a teacher is using activities from other sources and doing them exactly the same, to me, he is indifferent to his job and doesn't care about it (T19).</i>
		Unwillingness (N=6)	<i>We lack resources, and it really gets me down, because I know that I can't do some of the activities even if I wanted to, there are too many things we need (T6).</i>
		Being kept tabs on (N=2)	<i>That guidebook makes me feel like they want to keep tabs on us all the time, I mean, I feel like we are being controlled. (T17).</i>
		Developing different perspectives (N=18)	<i>Hundreds of activities in the guidebook correspond to different perspectives, I think it is a really good source for those who use it (T7). Sometimes it's nice to take advantage of new ideas even if you have a lot of experience (T24).</i>
		Developing imagination (N=17)	<i>It has nice activities that help improve creativity and imagination. They give teachers new ideas (T1).</i>
Creativity		Positive effect	Elaboration (N=15)
	Developing flexibility (N=15)		<i>When you check the guidebook carefully, you notice things that you think are right but are actually wrong, and you start using the materials in different ways (T4).</i>
	Improving (N=14)		<i>It helps you improve the ordinary activities and yourself (T15).</i>
	Developing fluency (N=9)		<i>You can check the options in the guidebook to come up with solutions to the challenges of activities (T7).</i>
	Negative		Turning into habit/addiction

	effect	(N=13)	<i>activities in the guidebook over and over again may turn into a habit after a certain point (T19).</i>	
		Limiting (N=11)	<i>Using blogs, forms, or books for activities limits teachers (T3). One should be open to new things, why should I confine myself to only one source? If you do that, you end up doing the same activities after a while (T5).</i>	
		Preventing questioning/enquiring/development (N=9)	<i>We need more than one book for professional development. We, preschool teachers, are used to using ready-made materials without questioning or doing any research on them (T20).</i>	
Interaction	Teacher-student	Providing immediate feedback (N=12)	<i>I accompany the kids when they pick up their workbooks and get back to their desks. I answer their questions right away (T12).</i>	
		Facilitating communication (N=10)	<i>You can ask kids questions from their workbook. It promotes communication (T13).</i>	
		Increase in effective listening skills (N=9)	<i>I deal with each kid during working hours, I listen to them carefully and help them with parts they are stuck on, and I make them feel like I listen to them and understand them (T14).</i>	
	Teacher-Parent	Increase in communication (N=19)	<i>When you assign homework from the workbook, parents want to talk to you more, they ask you more questions and they are pleased with it (T22).</i>	
		Increase in parent involvement (N=18)	<i>I give home assignments, and tell the kids to take their workbooks back home with them so that the parents can help them go over the lessons, and this way, they get to be more involved in their children's education (T12).</i>	
		Increase in follow-up / Being taken more seriously (N=16)	<i>Parents take you more seriously when you give homework because they know that you are keeping tabs on the students. They take you more seriously and listen to you more carefully and talk to you more (T13).</i>	
		Easy communication (N=7)	<i>You can communicate more easily with parents about activities and stuff, which is good for teacher-family relationship (T10).</i>	
		Teacher-teacher	Exchange of views (N=13)	<i>I sometimes talk to my colleagues about which activities I like the best, it is effective because they also do those in their class (T2).</i>
			Coordination (N=8)	<i>Having similar activities in all classrooms results in coordination, I mean, parents like it when they see similar materials on all the pin boards (T23).</i>

Table 2 shows that the PEAGB affected participants under the themes of psychological, creativity, and interaction, which consisted of either positive or negative categories. Most participants addressed psychological dimensions.

As for psychological dimension, participants stated that the PEAGB promoted self-confidence, efficiency, relief, curiosity, satisfaction, pride, inspiring, courage, idealism, and innovativeness. Participants compared the activities they designed in the past to those in the PEAGB. They felt more self-confident when they saw that their activities were similar to those in the PEAGB. They remarked that the PEAGB sparked their curiosity at first and that PEAGB activities with different materials could encourage teachers. Some participants noted that they used the PEAGB to increase teaching efficiency and were inspired by the activities in it and that they preferred to be open to new things, and therefore, believed that teachers should carry out pleasant activities that have not been used. As for negative psychological effects, participants argued that the PEAGB caused dissatisfaction, idleness,

unproductiveness/inadequacy, indifference, unwillingness, and the feeling of being watched or controlled, and reduced motivation. Some participants stressed that they were dissatisfied and felt like the PEAGB was a waste of paper because they already performed activities that were similar to those in it. They also argued that ready-made activities made teachers unproductive and lazy. Some participants felt unmotivated and unwilling to perform the PEAGB activities because they lacked the necessary materials and resources to perform them in their classrooms. Some participants maintained that the Ministry of National Education made them use the PEAGB to watch over and keep tabs on teachers even from afar.

As for creativity dimension, most participants stated that the PEAGB helped them develop different perspectives, and imagination, elaboration, flexibility, and fluency skills, while some others asserted that teachers might get too used to using the PEAGB and that it might limit and prevent them from questioning and inquiring, resulting in arrested development. The PEAGB activities helped participants develop different perspectives and encouraged them to use imagination. Although some participants believed that the PEAGB might limit them and turn into a bad habit in the future, most participants noted that it allowed them to design different activities using simple materials, and thus, to improve themselves. They remarked that teachers should take many factors into consideration to be able to perform preschool education activities effectively, and thus, could use the PEAGB when they figured out the challenges of activities. They also emphasized that the PEAGB could be used to teach the preschool education curriculum.

Participants' statements regarding interaction dimension were categorized into teacher-student, teacher-parent, and teacher-teacher. They took into account both the PEAGB and LJHPE when they expressed their opinions. They stated that the LJHPE allowed teachers to give students instant feedback, and therefore, promoted teacher-student interaction. Some participants noted that they tried to listen to their students effectively, when they performed the LJHPE activities at their desks. Many participants remarked that they sometimes exchanged ideas with their colleagues to perform the same PEAGB activities in their classrooms and that when they assigned homework from the LJHPE, parents became more engaged in their children's education and took the teachers more seriously, resulting in better parent-teacher communication. This section addressed the effects of the PEAGB and LJHPE on teaching and learning (Table 3).

Table 3. Effects of PEAGB and LJHPE on Teaching and Learning

Theme	Category	Subcategory	Codes	Quotations
Teacher	Process planning/management	Positive effect	Paying attention to individual differences (N=16)	<i>When I checked the guidebook I realized that the activities in it pay more attention to individual differences, that's what I try to do (T8).</i>

	Receiving family support (N=14)	Almost all activities in the guidebook focus on parental involvement. It's a good thing, because after all it's impossible to do it on your own (T22). When I assign homework from the workbook, parents get more involved, so it makes the day very productive (T12).
	Planned process (N=13)	The guidebook helps you plan your steps, I mean, you can plan out your whole day (T11).
	Providing experience (N=10)	I have an associates' degree, so there are some stuff I'm not familiar with, but the guidebook provides me with experience (T13).
Negative effect	Failure to do what one wants (N=9)	I you become too dependent on the guidebook, it might prevent you from doing the activities you actually want to do, and so, you just can't do them. (T5).
	One-sided planning (N=8)	It's useful to design activities together with the kids, but it is mostly the teachers who choose activities from the guidebook (T10).
	Regional differences (N=7)	It's quite obvious that the activities in the guidebook don't pay much attention to regional differences, I mean, they don't take them into account (T6).
Educational environment and material	Different ways of use (N=14)	The guidebook has all kinds of activities. With some experience, you get to modify the activities and the environment (T4).
	Making use of possibilities (N=12)	When you check the guidebook you see that you can use the materials in different ways, so it tells you that you can diversify your resources (T1).
	Reorganizing (N=9)	The book is full of examples which show you that you can make minor adjustments for an activity you like (T7).
	Limitations (N=11)	Sometimes our hands are tied because there are too many things we need to do the activities (T6).
Negative effect	Using the same space (N=10)	The kids work on the workbooks at their desks, which kills creativity because we can't use them in a different way (T14).
Activities	Contribution to professional skills (N=11)	Seeing different activities and trying to put them in practice in class teaches me things about my profession, there are a lot of activities that I have not seen before (T23).
	Transition activity (N=8)	I use the workbook as a transition activity when they get bored (T12).
	Spirality (N=8)	The kids use the workbook to go over what's been taught to them (T2).
Negative effect	Uneven distribution (N=13)	There are ten types of activities in the guidebook, but some are more than the others (T3).
	Activity type (N=9)	I think they all can only be used as large group activities (T23)
	Similar activities (N=7)	The activities in the guidebook are the same as mine anyway, so it's made no difference whatsoever (T19).
Experience	Representing differences (N=13)	I think about how to put the things I've learned from the guidebook into practice in class, like how to use the materials in different ways (T24).
	Careful use (N=12)	I should be very meticulous when it comes to using the guidebook, I mean, the class size, what kind of kids they are, their age etc. are all very important things that

			<i>should be taken into account (T17).</i>
		Support to parents (N=11)	<i>The workbook gets the parents and kids spend more time together, so you support them in a way (T22).</i>
		Addicting (N=14)	<i>The guidebook can become an addiction, especially for teachers who have little work experience (T19).</i>
		Cutting corner (N=13)	<i>I think the guidebook makes things too easy for teachers (T10).</i>
	Inadequate	Difficulty in performance (N=8)	<i>Most of the activities in the guidebook are too complicated, so I have a hard time doing them in class (T9).</i>
		Internalizing (N=3)	<i>I work with small kids; I sometimes have a hard time adjusting the activities in the guidebook to their level (T20).</i>
		Regular monitoring (N=22)	<i>We use the workbook on a daily basis, so I get to monitor the kids regularly (T13).</i>
	Positive effect	Evaluation (N=17)	<i>All workbook-related observation and information helps us draw year-end reports (T18).</i>
		Informing parents (N=14)	<i>We share the evaluation results with the parents. (T15).</i>
Measurement and evaluation		One dimensional (N=9)	<i>I don't do evaluation based solely on the workbook. I mean, I think it would be wrong to focus only on cognitive skills and let parents know about them because there are some other target skills that we have to take into account as well (T21).</i>
	Negative effect	Result-oriented evaluation (N=8)	<i>Process-oriented evaluation is more important in preschool education. I feel like the workbook puts the brakes on it a little (T4).</i>
		Putting in practice (N=12)	<i>There is a mismatch between the workbook and the goal of linking activities with everyday life. (T1).</i>
		Active learning (N=9)	<i>I think that kids are passive when they work on the workbook at their desks, what is active is only their hands (T8).</i>
		Attention (N=8)	<i>I don't think the workbooks do much about attention skills, I mean, I think it's the teachers who should teach them how to concentrate (T11).</i>
	Learning processes	Making associations (N=7)	<i>We should choose activities which would help students make associations with real life, I mean, especially the younger ones cannot do it at all. (T16).</i>
		Problem-solving (N=7)	<i>The problems in the workbook are too superficial. The kids should try to figure out real problems, I mean, like everyday problems (T2).</i>
Student		Convergent thinking (N=14)	<i>The kids who use the workbooks too often are more likely to solve problems in a predictable way, but that's not what we need, right? (T15).</i>
	Thinking skills	Creativity (N=12)	<i>Working on the workbooks at the desk kills creativity (T4)</i>
		Reflective thinking (N=4)	<i>They fill in the worksheets without questioning or using critical thinking skills, they just do it because we ask them to (T21).</i>
	Learning retention	Repetition (N=13)	<i>If you are careful, the kids can use the workbooks to go over the concepts addressed in the activities during the day (T19).</i>

		Active engagement (N=2)	<i>You see that the kids are very active while performing the activities in the workbooks, and meanwhile we get to take a break and rest a little. As you know, we don't do recess (T17).</i>
	Negative effect	Failure to gamify (N=16)	<i>All kids care about is games, so we should teach everything through games, but how can we do that with the kids working on the workbooks at their desks (T8).</i>
		Internal motivation (N=11)	<i>When you give the kids the workbooks and tell them to get back to their desks and work on them, you can see it in their eyes that they feel bored, it's because they don't want to do the activity because they do it at home anyway (T11).</i>
Interaction/communication	Decrease	Teacher-student (N=15)	<i>The teacher gets to interact with her students most when they play new and different games and when she also takes part in it (T21).</i>
	Increase	Student-student (N=7)	<i>I can say that they interact more at the desk (T9).</i>
Economic dimension	Positive	Poor students (N=8)	<i>I work in a village school, where we are always in need of too many things. The kids' families are poor. May God bless the state, it at least provides the workbooks (T4).</i>

Table 3 shows that both the PEAGB and LJHPE have various effects on education. The dimension of “teacher” consisted of the categories of “process planning/management,” “educational environment and material,” “activities,” “experience,” and “measurement and evaluation.” The PEAGB affected participants in the way they planned education, set the classroom environment and materials, and evaluated students. The dimension of “student” consisted of the categories of “learning processes,” “thinking skills,” “learning retention,” “interaction/communication,” and “economic dimension.” According to participants, the LJHPE had both positive and negative effects on students’ thinking skills, learning retention, and classroom interaction (Table 3).

Participants used the PEAGB in different ways to plan and manage education. They stated that the PEAGB activities took individual differences into account and that they tried to choose activities that provided parents with the opportunity to be involved in their children’s education because they thought that parental engagement was an indispensable part of effective education. They noted that the PEAGB helped them plan education better and carry it out more effectively, making them feel comfortable and that the PEAGB helped teachers with an associate’s degree to experience teaching-learning. It is noteworthy that some participants had positive views of the effect of the PEAGB on the process management, whereas some others had negative views of it. While some experienced participants were of the opinion that using activities from one source limited teachers, others argued that they could not perform the PEAGB activities even if they wanted to, because they lacked the necessary resources and materials. Some participants believed that teachers choosing activities on their own killed productivity, and therefore, recommended that teachers involve students in choosing

activities. Some participants working in the underprivileged regions of Turkey wanted to highlight that the PEAGB did not take regional differences into account.

Some participants stressed that the PEAGB had numerous activities that could be modified according to needs. Some participants maintained that although the PEAGB had limitations, it showed experienced teachers how to use different settings and materials to perform activities, and therefore, had a positive effect on teaching-learning. Experienced participants remarked that the PEAGB supported new teachers who needed professional development and that they used the LJHPE as transition activities to take advantage of the spirality of the curriculum. Participants also asserted that all learning outcomes of preschool education should be achieved even if it took ten kinds of activities to achieve only one of them. However, they criticized how randomly distributed the PEAGB activities were, which seemed to them haphazard and unplanned. Especially those with an associate's degree conducted the PEAGB activities as large group activities.

The way participants used the PEAGB depended on the degree of their work experience. Those with 0 to 5 years of work experience used it more carefully and took into account the class size, materials and resources, and children's development level before they chose activities from the PEAGB. However, those with at least 15 years of work experience avoided using it as much as they can because they believed that it might turn into a "bad" habit after a certain point. They also pointed out that they had difficulty adapting the PEAGB activities to age groups. Almost all participants used the LJHPE and their LJHPE-related impressions and observations to follow up their students on a regular basis and to prepare the year-end reports. However, some of them underlined that the LJHPE was a one-dimensional and result-oriented evaluation that focused only on cognitive skills.

Most participants with 0 to 5 years of work experience noted that the LJHPE did not promote active learning. They also stated that gamified activities involving students helped students develop attention and problem-solving skills and make connections with everyday life, but that using the LJHPE too often prevented students from developing as many divergent, reflective, critical, and creative thinking skills as they were expected to. Therefore, they recommended that teachers choose gamified activities promoting active engagement to achieve learning retention. They highlighted that the LJHPE activities were not gamified, and therefore, resulted in reduced motivation in students. Although some participants thought that students performing LJHPE activities at their desks were likely to interact more with one another, the majority argued that that type of activity had negative effects on teacher-student interaction. Lastly, some of the participants working with children of poor families in the underprivileged regions of Turkey maintained that the LJHPE was consistent with the principle of equality of opportunity. Participants took some factors into account when using the PEAGB (Table 4).

Table 4. Factors Taken into Account When Using the PEAGB

Theme	Category	Codes	Quotations
Student		Age (N=22)	<i>The guidebook has different activities for different age groups, an activity should be appropriate for the age group it targets. (T16). You should adjust an activity you like to the age level it is intended for (T4).</i>
		Developmental characteristics (N=19)	<i>I choose activities appropriate for the developmental characteristics of students or choose ones that a bit more challenging, I think that this is important for efficiency. (T1).</i>
		Curiosity and enthusiasm (N=16)	<i>I believe that one should always have a plan B and C, because kids may not like an activity that you do, right? (T15).</i>
		Individual differences and needs (N=15)	<i>We know that every child is different from each other, so I think we should choose activities that appeal to all of them (T11). I have some activities in my monthly plan that I prepared to address the needs of some of my students with special needs, because we can't ignore them (T8).</i>
		Readiness (N=12)	<i>You know, some students are worse than others. There are some with low readiness, which should also be taken into account (T2).</i>
Factors	Teacher	Experience (N=15)	<i>I've said earlier that the way a teacher uses the guidebook depends on how experienced she is. if you are experienced, you use it less often, but if you are inexperienced, you use it more often (T19).</i>
		Unpreparedness (N=13)	<i>Teachers are human beings, too. You sometimes find yourself in difficult situations where, if you are unprepared, you have to open the guidebook and choose a nice activity (T22).</i>
		Mental state (N= 8)	<i>Sometimes I get into a mental state where I don't even want to go to school for work, I just don't want to do anything, when I feel that way, I just use some other sources (T18).</i>
		Colleague effect (N=3)	<i>When I meet my colleagues for breakfast or when I visit their classrooms, I see them doing nice activities, and I want to do them with my students too, so I ask them and find out where they get those activities and do them with my students (T13).</i>
		Target skills (N=17)	<i>We have to do activities that are appropriate for each developmental stage. I take my students' gaps in their knowledge and choose activities from the guidebook accordingly (T23).</i>
		Learning outcomes and indicators (N=15)	<i>Activities depend on the learning outcomes and indicators that we have to teach, so we modify the activities accordingly (T7).</i>
		Monthly plan (N=12)	<i>In general, I pay attention to monthly plans (T5).</i>
Process		Balance (N=10)	<i>You can't just focus on art activities; you should use different activities that'll go hand in hand with the curriculum in a balanced way (T11).</i>
		Time (N=7)	<i>You spend a certain amount of time with students, so there is only a certain amount of time for activities, so I check how long an activity is before I choose it for class (T9).</i>
		Regional differences (N=6)	<i>Although the guidebook doesn't seem to address regional differences, I am as picky as possible when it comes to</i>

		<i>choosing an activity (T6).</i>
Activities	Concepts (N=23)	<i>I make sure that the concepts that the guidebook activities focus on are consistent with my plan (T14).</i>
	Activity content (N=19)	<i>I choose the activities about the content that my students need to learn (T3).</i>
	Activity type (N=13)	<i>I generally prefer big group activities; I make sure that all students are involved in them (T20).</i>
	Method and technique (N=7)	<i>There are only certain techniques that my classroom lets me use, so I use the activities that are consistent with those techniques (T4).</i>
	Adaptations (N=3)	<i>If you have an inclusive student, you have to be more careful, I mean, you have to choose or modify activities accordingly (T8, T10, T17).</i>
Environmental conditions	Materials (N=16)	<i>The guidebook has so many activities that can be performed with so many materials, which is very nice, but you have to check what materials you have at hand before you choose one of those activities (T21).</i>
	Resources (N=14)	<i>For example, the guidebook has some very nice outdoor activities, and I want to use them, but the school doesn't have a garden or a sandpit or a screen house etc. so sometimes you are limited by what you have at hand (T24).</i>
	Class size (N=5)	<i>Class size is a factor that limits or facilitates things. There is no way you can perform some of the guidebook activities in such an overcrowded classroom as mine, and so, I always take the class size into account before I choose an activity (T18).</i>

Participants' statements regarding the factors they took into account when using the PEAGB were grouped under the categories of "student," "teacher," "process," "activities," and "environmental conditions" (Table 4). Participants were of the opinion that teachers should take age, developmental characteristics and individual differences into account when designing activities. They noted that teachers who took individual differences into account when designing activities promoted readiness, curiosity, and enthusiasm in students and had alternative plans in case of any setback.

The way participants used the PEAGB depended on their level of professional experience. Some participants were sometimes unprepared for classes and quickly found activities from different sources when they were in a bad mental state. In schools with high teacher-teacher interaction, teachers got together for breakfast and exchanged ideas or visited each other's classrooms and saw what kind of activities they did. They asked their colleagues where they got those activities from and found them and applied them in their own classrooms. They also took into account their students' target skills and designed education according to their monthly plans. Some participants considered regional differences and the duration of activities before they chose and implemented them in their classrooms. Some participants made an effort to distribute the PEAGB activities in line with the curriculum.

Most participants thought about whether the PEAGB activities could be used to teach the concepts and content in their monthly plans. However, there were very few participants who

considered in what way the PEAGB activities should be implemented. Teachers of students with special needs chose PEAGB activities that could be adjusted according to their needs. Moreover, some participants took into account the resources and materials in their classrooms when choosing PEAGB activities. Participants working in kindergartens were of the opinion that class size affected which activities they could choose. Participants took some features into account when using the PEAGB. Table 5 presents information regarding the features that affected the way participants used the PEAGB and its features.

Table 5. PEAGB Features and Its Usage

Theme	Category	Codes	Quotations
Reasons for choosing PEAGB activities	Activity type	Drama (N=19)	<i>It is really hard to prepare and apply drama activities. I checked the guidebook as soon as I got it to see whether it has simple drama activities. It has some drama activities, but not as many as art activities (T15).</i>
		Science (N=16)	<i>I check the science activities in particular because it's one of the most challenging types of activity for me, so I check such activities to learn the methods and techniques used to apply them (T1).</i>
		Math (N=15)	<i>I love the math activities in the guidebook, they are way more different, and nicer and easier than the ones I've used so far (T12).</i>
		Art (N=10)	<i>The guidebook has a lot colorful images and examples, especially art activities, beautiful ones (T23).</i>
		Play (N=9)	<i>I'm new, so I want to find some games, but I can't use the guidebook to that end (T7).</i>
		Music (N=8)	<i>I enjoy learning lyrics by heart, and the guidebook has many of them, but it has one thing missing, it doesn't have a music CD (T9).</i>
		Preparation for reading and writing (N=6)	<i>The guidebook has activities that are different from the ones we do. I'd checked it for reading and writing activities (T18)</i>
		Turkish (N=3)	<i>I check the guidebook to find new stories and reading materials and children's books recommendations (T13).</i>
		Movement (N=1)	<i>My classroom is too small to perform some of the movement activities, so I need to learn effective movement activities (T6).</i>
		Activity setting	
Integrated (N=8)	<i>Integrated activities are important to me. I sometimes have a hard time finding transition activities, but two or more complementary activities work fine (T22).</i>		
Independent small group (N=5)	<i>Small group activities work better for me because I work with small kids and I sometimes have a hard time keeping them under control (T14).</i>		
Individual (N=3)	<i>I have an inclusive student in my classroom, so I need individual activities (T8).</i>		
Area of development		Cognitive (N=19)	<i>Students use cognitive skills in almost all activities, and the guidebook has a lot of activities on cognitive skills anyway, so we use them (T21).</i>
		Social/affective (N=11)	<i>I'm one of those who think that preschool education helps kids, especially with social/affective skills. They'll eventually develop other skills one way or another, but I believe that emotional development is critical (T10).</i>

	Language (N=6)	<i>You have to use linguistic skills in all activities, and the kids listen to you and answer your questions, and they get to talk to each other, which helps them develop linguistic skills (T12).</i>
	Motor (N=4)	<i>Kids need to move, so I've checked the guidebook to find some activities to let them discharge their excess energy and to develop motor skills (T13).</i>
	Self-care (N=2)	<i>I have a student with special needs, so I apply individual self-care activities (T2).</i>
	Sometimes (N=16)	<i>I use it sometimes, if not always (T24).</i>
	Rarely (N=13)	<i>I use it when I need it, that is, rarely (T23).</i>
Frequency of PEAGB use	Always (N=12)	<i>I'm good without the guidebook unless there's something on my mind, I mean it's always on the bookshelf within reach of me, if there's something that's stuck in my mind, I just look it up on the guidebook, there is no shame in not knowing something. The shame is in not learning it (T11).</i>
	Often (N=9)	<i>Yes, I use it often (T15).</i>
	Never (N=5)	<i>No, I've never used it because I believe that we should develop activities by ourselves (T19).</i>
	Simple/intelligible language (N=16)	<i>The guidebook has a very plain and intelligible language. The activities are concisely explained and focus on main themes (T4).</i>
Other features of PEAGB	Strengths	
	Diversity (N=15)	<i>The guidebook has several examples for each type of activity, I think they are enough. Besides, the activity examples are interesting (T8).</i>
	Images (N=11)	<i>I like that the guidebook is colorful. The sample images are very nice (T21).</i>
Weaknesses	Physical properties (N=9)	<i>The book is thick and heavy, and also a bit big (T20).</i>
	Activity sequencing (N=8)	<i>The activities are all messy, I mean, they should have been better organized. It would be nice to have them in order so that we could easily find the activities that should be implemented one after another (T17).</i>
	Activity distribution (N=7)	<i>I don't think the guidebook activities are evenly distributed. It has too many art activities, but we need more math, science, and drama activities, which are generally harder to practice (T12).</i>
	Superficiality (N=3)	<i>I find the guidebook activities superficial, so it's better to use different sites and blogs to find activities (T5).</i>
	Others (N=2)	<i>The guidebook should have had a music CD in it and also materials to perform the activities in the classroom (T9).</i>

The reasons why participants used the PEAGB were grouped under the categories of “activity type,” “activity setting,” and “area of development.” Other features of the PEAGB were grouped under the categories of “frequency of PEAGB use,” “strengths,” and “weaknesses.” Most participants focused on the type of activity. Some participants used the PEAGB to implement drama, science, and math activities because they found them more comprehensive and difficult than other types of activities. They believed that the examples in the PEAGB were informative in terms of application or methods, and therefore, helped them perform drama, science, and math activities. Participants stated that they had checked the PEAGB because they were curious about the art and music activities in it. All participants but one with limited means and resources would like to keep up with the

developments concerning the play, preparation for reading and writing, and Turkish activities in the PEAGB.

More than half of the participants saw the PEAGB activities as independent large group activities. Participants who had students with special needs preferred individual activities, while those working with small children preferred independent small group activities. It is noteworthy that very few participants used integrated activities.

Most participants preferred activities that focused solely on cognitive skills. The number of participants emphasizing social/affective skill development in early childhood was higher than those emphasizing motor and linguistic skill development, albeit not as many as those focusing on cognitive skills. Two of the three participants with inclusive students used the PEAGB for self-care activities.

More than half of the participants sometimes used the PEAGB, while half always used it. However, some never used it. Most participants found the PEAGB concise and easy to understand and thought that it had a sufficient number of diverse activities. To them, one of the strengths of the PEAGB was that it had colorful images. However, a few participants criticized the PEAGB for being too superficial and physically too heavy and big and argued that it had disorganized content and unevenly distributed activities.

Discussion, Conclusion and Recommendations

Participants use the Preschool Education Activity Guidebook (PEAGB) and Let's Join Hands for Preschool Education (LJHPE) as supplementary sources, which has been reported by previous studies on teachers of different grades. Akdeniz and Paniç (2012) found that almost all teachers used supplementary books in their lessons. However, the PEAGB has mostly psychologically positive or negative effects on our participants. It boosts confidence in some, but dissatisfaction in others. The PEAGB is an important supplementary source of information based on the Ministry of National Education 2013 Preschool Education Program, and therefore, it is not surprising that it makes our participants more self-confident. Participants use the activity examples in the PEAGB to test their own activities and feel more assured to see that they are similar. However, this disappoints some participants because they think that since the PEAGB activities and their own activities are similar, then the PEAGB does not make any difference. In the research conducted with preschool teachers in Malaysia to increase the quality of science and technology activities in two consecutive periods; It was observed that the supplementary resources provided to teachers could not be used properly. In this study aimed at increasing the quality of education; teachers were asked to continue their use of resources by providing innovative, creative, and informative training, but it was understood that some of the teachers could not get the necessary contribution and continue their own practices (Nachiappan et al., 2018). For this reason, it can be said that it is extremely important for preschool teachers to be

open to improvement and to have a positive attitude. Ayvacı and Devecioğlu (2013) also reported that most teachers did not use the PEAGB because they thought that its activities had limited content and applicability. Some of our participants experience the same thing and approach it from different points of view. Those who notice that the PEAGB activities are similar to their own feel more confident thinking that they are on the right path, whereas some others see this as something negative and think that since the PEAGB activities are similar to their own, then the PEAGB is useless. Those in the second camp are actually looking for a supplementary source, but they think that it should have adequate content.

From the perspective of creativity, participants have positive or negative views of the PEAGB. Those in favor of the PEAGB argue that it helps them develop different perspectives, whereas those who are against it state that it may turn into an addiction and limit them. Kulantaş (2007) also reported that teachers were of the opinion that the PEAGB might make them less creative and limit them. We can suggest that the more professional experience the teachers have, the better they can be at managing this risk.

Participants' statements focus mostly on teacher-parent interaction concerning the use of the LJHPE. They note that the LJHPE encourage parents to interact more with them. At this point, we should emphasize that different models can be used to promote not only parent engagement in schools but also better teacher-parent interaction because the latter improves teachers' efficiency as well (Murray et al., 2015). In addition, studies show that the use of common resources with families in many development areas, especially language and early literacy skills, is beneficial for children. It can be said that the hands-on work carried out jointly by teachers and parents strengthens both child-family and teacher-parent relationships (Hudson et al., 2018; Purpura et al., 2017; Uscianowski et al., 2020). In terms of teacher-teacher relationship, participants talk to their colleagues and exchange ideas about the PEAGB activities. Lastly, they also remark that the LJHPE provides them with the opportunity to give instant feedback to children. Research shows that efficient guidance services within the scope of the curriculum promote positive teacher-student interaction and help students develop social/affective skills from early ages (Haslip et al., 2018; Lillvist et al., 2014). Therefore, teachers should take into account children's individual needs and choose different types of activities accordingly in order to improve the quality of teacher-student interaction. In short, both the PEAGB and LJHPE make contributions to interaction. Moreover, participants benefit from the exchange of ideas with their colleagues and use their perspectives to modify and/or manage the PEAGB activities. We can, therefore, conclude that the PEAGB promotes flexibility. However, Bircan (2014) reported that first-year teachers thought that the PEAGB limited their ability to choose, modify and recommend activities. Given that the PEAGB is a guidebook, we can conclude that it has the desired flexibility.

Participants address the effect of the PEAGB and LJHPE on education under the dimensions of “teacher” and “student.” As for the dimension of “teacher,” participants point out that the PEAGB takes individual differences into account in the planning and management of education, allows for different ways of use in terms of educational environment and material, contributes to professional skills in terms of activities, represents differences in terms of experience, and allows for regular monitoring of students in terms of measurement and evaluation. However, Kulantaş (2007) reported that teachers thought that the PEAGB activities did not take individual differences into account and did not offer alternatives. Some of our participants also assert that the PEAGB activities evaluate only one dimension and are unevenly distributed, and therefore, may limit teachers and prevent them from doing what they want if those activities turn into an addiction. For example, the Reggio Emilia approach, which is an ideal example for preschool education, involves children in projects and activities to guide their interests and needs. Therefore, as stated by participants, using the PEAGB alone may limit teachers and prevent them from doing what they want. Some of our participants argue that they cannot perform some of the PEAGB activities because they lack sufficient resources and materials in their classrooms, which has been reported by other studies as well (Erdoğan, 2007; Kamber, 2007; Kulantaş, 2007). Participants maintain that the LJHPE allows them to keep track of their students’ development, but criticize it for evaluating only one dimension of development. In contrast, Gökçe (2006) reported that science teachers thought that the LJHPE had more measurement and evaluation techniques than offered by the curriculum. In a nutshell, participants are of the opinion that the PEAGB should be more comprehensive in terms of process, material, activities, and measurement and evaluation. Daşcan (2000) also argues that guidebooks should be clear and adequate and capable of responding to potential problems and educational needs.

As for the dimension of “student,” participants address only the negative effects of the LJHPE activities in terms of learning processes and state that they fail to make connections with everyday life, to promote active learning, and to focus on problem-solving skills. Kolaç (2003) also argues that textbooks and supplementary sources should have content that encourages students to think and make connections with life. Our participants note that the PEAGB leads to convergent thinking in students. Şahin (2010) also reported that classroom teachers thought that textbooks only partially helped students develop high-level thinking skills. Considering the preschool children's need for play, it can be said that activity books have a negative effect on children's freedom to act. In this respect, as Sobel (2016) stated, the use of indoor and outdoor playgrounds where children can feel free should not be limited by using activity and guide books. Also, considering the fact that today's children can find much less time for the once common game genres, they should be given the chance to examine their environment and nature (Sobel, 2016). Uysal (2012) also conducted research on the PEAGB and LJHPE at different grade levels and found that teachers believed that the LJHPE failed to help students develop high-level thinking skills. He concluded that the guidebooks and workbooks should have

different activities and problems that help students connect with everyday life and develop high-level thinking skills. When teachers notice such negative effects, they should rely on their own experience and use the gamified activities they are familiar with and respond to students' needs (Trawick-Smith & Dziurgot, 2010). In conclusion, the LJHPE should have content that prepares students for real life conditions and helps them gain experience by doing-living and develop divergent thinking and problem-solving skills.

Participants find the LJHPE helpful because it allows for repetition and ensures learning retention, but find it inadequate because it lacks gamified activities. Güngör and Çavuş (2015) also suggest that supplementary books be modified to ensure learning retention. Bağcı (2011) also draws attention to the fact that supplementary books have too little emphasis on educational game techniques. Participants also evaluate the LJHPE in terms of interaction-communication and point out that it leads to a reduction in teacher-student interaction but an increase in student-student interaction. Lastly, they express positive opinions in terms of economic dimension and assert that the LJHPE takes poor students into account as well. In short, participants express positive views of the LJHPE in terms of student-student interaction. However, Bircan (2014) stated that first-year teachers had negative views of both the PEAGB and LJHPE and suggested that the books have activities to improve student-student interaction and take different socio-economic backgrounds into account. We can state that the Ministry of National Education takes heed of the recommendations because it provides all preschoolers with three-volume workbook sets regardless of their socio-economic status.

The most important factors that participants consider when using the PEAGB are age, experience, target skills, concepts, and materials in terms of children's characteristics, teachers' characteristics, process, activities, and environmental conditions, respectively. Şahin (2010) reported that teachers thought that the PEAGB took into account students' age and developmental characteristics. Our participants also agree that the PEAGB takes preschoolers' age-related characteristics into consideration. However, experienced participants need the PEAGB less. Varol (2017) concluded that the use of the PEAGB depended on professional experience and that teachers with more than 15-20 years of work experience used the PEAGB less often than new teachers. Participants remark that the PEAGB contains activities with different materials but also add that not all classrooms have the same materials and resources to perform those activities. Research also shows that teachers claim that the PEAGB activities are hard to perform and require materials that are not easily accessible (Erdoğan, 2007; Kulantaş, 2007; Yılmaz, 2014). The PEAGB should include alternative resources and materials to offer teachers different perspectives and to encourage them. However, participants also point out that the PEAGB does not take regional differences much into account. Research also shows that teachers are of the opinion that the PEAGB activities should be modified based on environmental conditions because they fail to take economic conditions in some

regions of Turkey into consideration. Teachers also criticize the PEAGB for failing to offer a flexible perspective in this regard (Kulantaş, 2007; Ulu Kalın, 2007; Yılmaz, 2014). However, Kamber (2007) reported that teachers were able to adapt the PEAGB activities according to the conditions of the region they worked even though they did not have all of the materials required by the activities. This flexibility depends on teachers' quality, problem-solving skills, practicality, and experience. Nevertheless, while preparing the PEAGB, experts should consider the conditions of Turkey and offer alternative materials, tips, and recommendations on regional differences and a flexible perspective to help teachers to better manage education.

In terms of features and usage, participants prefer the PEAGB to get an idea of drama activities. In terms of activity setting, they use it mostly for independent large group activities. In terms of area of development, they mostly prefer activities focusing on cognitive skills. Güven (2010) reported that classroom teachers thought that the Ministry of National Education life science textbooks lacked enough examples for learning outcomes and failed to promote active student engagement. Aşıkcan (2012) reported that first-grade teachers thought that the Turkish textbook did not have enough activities for preparation for reading and writing. However, our participants believe that the content of the PEAGB focuses on different types and settings of activity, and target skills. In terms of other features of the PEAGB, most participants sometimes use the PEAGB. Ayvacı and Er-Nas (2009) also found that although teachers thought that the PEAGB was useful, they did not use it enough.

As for strengths, participants find the PEAGB clear and easy to understand. Yılmaz (2014) reported that teachers had a moderate positive view on the fact that the PEAGB was easy to understand. However, Tekeli Yıldızhan (2010) reported that fourth- and fifth-grade teachers were of the opinion that the Social Studies Lesson Preschool Education Activity Guidebook was hard to understand. Research shows that teachers from different branches think that the Ministry of National Education textbook has good content, narration, and intelligibility (Akdeniz & Paniç, 2012; Kaya Şengören et al., 2015; Marulcu & Doğan, 2010). Our results and those of previous studies indicate that teachers care about the language of guidebooks.

As for weaknesses, participants find the PEAGB thick, heavy, and big. Mentiş Taş (2006) also reported that social studies teachers found Ministry of National Education textbooks physically partially positive. According to the "Evaluation of Primary School Textbooks" conducted by the Department of Education Research and Development (DERD, 2008), students suggest that the books be lighter, while teachers suggest that they be bound more securely. Therefore, teachers and students expect Ministry of National Education textbooks, guidebooks, and workbooks to be durable, light, and easy to use.

The General Directorate of Basic Education had the purely advisory PEAGB prepared by a commission of experts and teachers after long hours of work and had it approved by the Board of

Education and Discipline, and then, distributed it to preschool teachers in order to improve the quality of preschool education and to prevent preschool teachers from using wrong resources prepared for purely commercial purposes. Regional and individual differences, and available resources are factors that should be taken into account by teachers in education management. This is clearly stated at the introduction of the PEAGB, “Teachers should choose activities that are in line with the monthly plans in which they take children's developmental characteristics, needs, interests, and readiness levels, and educational environments and materials, and other resources into account and use them in daily education after modifying them.” The purpose of guidebooks is to help teachers not only to perform activities but also to develop different perspectives during practice and to guide them in the reflection of the multi-dimensional thinking system on education. At this point, preschool teachers should ask themselves “What would I do without a guide?” Preschool teachers, who are very important people in children's life, are entrusted with the task of preparing them for the future. Therefore, they should have comprehensive knowledge of factors to be considered and put their knowledge and experience into practice. Their success is limited not by the lack of materials and resources, but by the imagination of children and themselves. However, it should not be forgotten that; children will develop in the desired direction under the responsibility of both parents and teachers. For this reason, especially in the early childhood education process where the first steps are taken; It is important that teachers and parents cooperate to share responsibilities and, not ignore it.

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The Effect of Drama Course on Prospective Primary and Preschool Teachers' Communication Skills

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Abstract

This research aims to determine the effect of the drama course on the communication skills of prospective primary and preschool teachers. In the research, a one group pretest-posttest model was used before the pilot-test. The research population of the study was 140 third-grade prospective teachers who studied at Afyon Kocatepe University Faculty of Education Primary and Preschool Education program and took drama lessons. Since the entire population was available for research, sampling was intentionally omitted. "Communication Skills Scale" developed by Korkut, Owen and Bugay (2014) was used as the data collection tool in the research. In the data analysis, Wilcoxon Signed Rank Test was used in the comparison of the difference between two pairs in dependent groups. In the comparison of binary groups, Mann Whitney U Test was applied. It was concluded that there was a significant difference in favour of the posttest among the pretest and posttest scores obtained from the "Communication Skills Scale" and its sub-dimensions of the prospective Primary and Pre-school teachers who took the drama course in the research and favour of the female prospective teachers among the pretest and total scores. It is also concluded that there is no significant difference between pretest and posttest score differences between Primary and Preschool prospective teachers.

Keywords: Drama, communication skills, preschool education, primary education, prospective teacher.

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Introduction

Rapid changes and developments in science, technology and industry have also influenced the education system. These changes and developments automatically changed the human profile that the education system tries to train. The necessity of raising individuals who study, research, question, solve problems, and effectively communicate instead of educating individuals who take the information directly transmitted by the teacher and memorize it, has become a reality. Teacher-centered traditional teaching methods are now being replaced by student-centered methods. Drama is one of the student-centered methods that substantially contribute to the skills required by modern human profile.

The concept of drama is derived from the Greek word (dran); and it means "to do, to make, to act". The concept of dran, transmitted to the Turkish language from Greek, has changed over time and become the word drama. Today, the word drama is used with a meaning of "playing, impersonating" (Karadağ & Çalışkan, 2005). San (1996) defines drama as "using theatre and drama techniques such as improvisation and role playing with group work to interpret and animate experiences, events, ideas, training modules, an abstract concept, and behaviors via re-organizing cognitive patterns of the participants in playful processes through which emotions, observations, experiences, and lives are revised". Drama is "the activities involving one or more people's internal and external movements and their life standards by interacting with each other, nature or other objects" (Adıgüzel, 2013). According to another definition, the drama is the reanimation and role-play of real dramatic moments in life by experts in group work, using playful processes and theatre techniques (Okvuran, 2003). Drama is a form of teaching with the animation techniques in which information, concepts and designs are embodied in real-life events and situations (Kara, 2014). Drama is a method that allows the individual to learn by doing and experiencing, emphasizes the creativity of the individual, puts them at the center of the learning process and helps them being a productive individual (Kaf, 2000). Drama is a game-based and a process-oriented method in which participants are guided by a leader (Heathcote & Wagner, 1990). Drama starts with an imaginary situation and occurs with a group planning the play and characters and spontaneous action and dialogue (Freeman, Sullivan & Fulton, 2003).

The role of drama in education is to provide a versatile learning environment that helps develop the dramatic dream world that enriches individuals' artistic sensibilities and self-perceptions (Güven, 2003). Giving this opportunity to children, who want to participate more into the dialogues and discussions thanks to their enhanced language skills, is important in helping them expressing themselves (Önder, 2006) Drama provides the opportunity to practice communicating with other people. It offers experiences to learn how to communicate. It is possible to internalize many communication elements by waiting for one's turn for communication, listening behaviour, reciprocity principle to open communication, by experiencing and trying. Educational drama gives children the

chance to actively use the language which is the tool of verbal communication for its development. It has been suggested that verbal and non-verbal communication of children, with their own peers and older people, on different situations, may have positive contributions to their language development and mental development (Önder, 2016). Drama supports the development of language and effective communication skills by providing opportunities for the child to improve their vocabulary and try out different features of the language. It helps the child to express his/her feelings and thoughts in different ways (Köksal Akyol, 2011). Drama contributes to the development of expressive language skills of primary school students, allows them to learn by doing and practising, and improves their imagination. It also provides important opportunities to children in terms of recognizing or questioning a character, explicating when necessary, describing the situations imagined inside and outside the role, asking questions within the role, understanding what facial and body movements mean by monitoring people's emotions, gestures and facial expressions, using and interpreting verbal/nonverbal communication (Kuşdemir, 2017).

Communication is a concept that takes place in both the scope, goals, methods, and dimensions of the drama and as a tool in reaching its goals which are very important for the participants in the drama process. In other words, drama studies are based on the rules of communication. The individual should communicate with oneself, one's partner and the group for various purposes. Communication is also an important skill that should be endowed with the participants in the drama process (Adıgüzel, 2013). There is a significant correlation between drama and communication skills. In drama activities, the individual actively participates in the process and efficiently uses the sensory organs. Individuals comfortably transmit ideas, feelings and thoughts to the other party through playful processes in drama. At the same time, individuals develop non-verbal communication skills such as body language, gestures, and facial expressions in drama practices. Therefore, it is stated that drama is an effective method for developing the communication skills (Bell, 2008).

The literature analysis shows that several studies stating that drama has an important effect on children's communication skills. Colston (1985) determined that drama education provides positive changes on verbal and social communication skills of individuals with different ages who suffer structural development disorder, and Netten (1995) stated that story-telling, role playing and drama activities are effective in correcting the mistakes elementary school students make in the communication and speaking skills (cited in Özdemir, 2003). As a result of drama studies with children who suffer social perception deficiency, Guli (2004) asserted that education has an impact on children's social skills. Mages (2008) concluded that drama studies positively affect children's language development. In her study, Kempe (2003) revealed that drama has an important place in supporting speech and listening skills.

In the studies on drama and prospective teachers' communication skills, several analyses are performed for its impact on speaking skills (Gabitova, Shayakhmetova & Beisembayeva, 2018; Hiřmanođlu & olak, 2019; Pishkar, Moinsadeh & Dabaghi, 2017), self-directed skills (Kosucu & Hursen, 2017; Saad Zaghoul, 2018) and its contribution to their personal development (Güner & Uygun, 2016; Tanrıseven & Ayka, 2013). There are also studies regarding the effects on communication skills of prospective teacher candidates' studying in different departments (Afacan & Turan, 2012; Arslan, Erbay & Saygin, 2010; Athiemoolam, 2013; Dereli, 2018). In the study conducted by Afacan and Turan (2012), it was concluded that education of communication skills integrated with the creative drama method given to prospective science teachers positively affects students' communication skills. Arslan, Erbay and Saygın (2010) found that the communication skills training provided by the drama method increased the communication skills of the child development and education department students. According to Karacil Kılıaslan and Yayla's research (2018), the creative drama method is more effective and permanent in improving the communication skills of prospective teachers than the traditional method. In other studies, that show drama has a positive effect on communication skills (Aydın Őengül & Topuođlu Ünal, 2018; Dere, 2019; Gökearsan ifti & Altınova, 2017), it is seen that the differences between departments are not compared.

It is thought that communication skills, which is one of the competence areas that teachers are obliged to acquire (MEB, 2017), should be addressed starting from teacher training. The availability of drama lessons in teacher training contributes to the development of communication skills of prospective teachers (Landy & Montgomery, 2012; Üstündađ, 2007). Drama is known for activating the psychomotor, affective and cognitive processes of individuals and it can be used to improve the communication skills. Effective communication skills are one of the requirements of the 21st century. In order to raise generations having this skill, it is necessary to train teachers with these skills and take necessary steps at the very beginning of the education. This research was conducted on the basis built upon all these ideas to determine the effect of drama course on prospective primary and preschool teachers communication skills and to compare this change. In line with this purpose, the following questions were tried to be answered:

1. Do the communication skills, pretest and posttest scores of the Primary School and Pre-School teachers who took the drama lesson differ significantly?

2. Do the communication skills of prospective Primary and Pre-School Education teachers who take drama course show a significant difference between their pretest and posttest scores by gender?

3. Is there a significant difference between the communication skills, pretest and posttest score differences of the prospective Primary and Pre-School Education teachers who took the drama course?

Method

Research Design

This study is experimental research as it is conducted for determining the effect of drama course on the communication skills of prospective primary and preschool teachers, and a one group pretest posttest model was used in the research. In this model, the pre-application information of a single group in the research is measured (pretest), then the application is carried out and the group is subjected to re-measurement (posttest) at the end of the application. If the obtained data show a statistically significant difference between the pretest and posttest results, this difference is considered to be due to the application (Baştürk, 2012).

Population and Sampling

The research population of the study was 140 third grader prospective teachers; 70 were from the Pre-School Education department and 70 were from the Primary Education department, took drama lessons and volunteered to participate in the research. Since the entire population was available for research, sampling was intentionally omitted. Considering the demographic characteristics of prospective primary teachers who participated in the study, it is seen that 75.7% of them are female and 24.3% of them are male. Considering the demographic characteristics of prospective preschool teachers, it is seen that 91.4% of them are female and 8.6% of them are male.

Data Collection Tools

Personal Information Form with the demographic characteristics of prospective teachers was used as a data collection tool in the research, and "Communication Skills Scale" was used to collect the required information for answering the research questions. The Personal Information Form was prepared by the researchers, and a question regarding the gender of prospective teachers was included. "Communication Skills Scale" was developed by Korkut Owen and Bugay (2014). "Communication Skills Scale" consists of 25 items and 4 sub-dimensions. Sub-dimensions of the scale are Communication Principles and Basic Skills (CPBS) (10 items), Self-Expression (SE) (4 items), Effective Listening and Non-Verbal Communication (ELNVC) (6 items) and Willingness to Communicate (WTC) (5 items). "Communication Skills Scale" was prepared as a five-point Likert-type grading scale. The reliability coefficient of the scale developed by Korkut Owen and Bugay (2014) was determined as .88. For this study, the reliability coefficient of the scale was found to be .89.

Data Collection

The research was carried out over a 12 weeks during Drama in Primary Education and Drama in Preschool Education lessons of Afyon Kocatepe University Faculty of Education Primary and Pre-School Education program. A total of 48 hours of drama lessons were taught to prospective teachers

by the researchers for 12 weeks, 4 hours a week (2 hours of theoretical 2 hours of practice). The course was carried out per the content of the drama course of Primary and Preschool Education undergraduate program determined by YÖK. In the first weeks of the drama course, prospective teachers were given theoretical information about drama. Practice sessions started in the following weeks. The researcher provided various drama practices for two or three weeks in order to set an example for prospective teachers. Then, prospective teachers performed micro-teaching by using the drama method. The practices in the drama course were carried out in four stages as warm-up, acting, relaxation and evaluation. Activities that will allow prospective teachers to mingle, get to know each other and communicate effectively are included during the warm-up, acting, relaxation and evaluation stages. Thus, prospective teachers were provided with the opportunity to cooperate and improve their communication skills. During the drama practices, the roles of prospective teachers changed and they were able to form different groups with different friends. In this way, it was ensured that prospective teachers were able to communicate with different individuals.

The researcher met with prospective teachers during the first class hour of the Drama course; made explanations about the content and course syllabus. Before starting the lesson, the researcher informed prospective teachers about the purpose of the research and the scale to be used. The prospective teachers were asked whether they volunteered to participate in the research and a scale was distributed to students who stated that they were volunteers. 140 third grader prospective teachers who study at Afyon Kocatepe University Faculty of Education Primary and Preschool Education program and take drama course had "Communication Skills Scale" pretest at the beginning of the semester. A total of 48 hours of drama lessons were taught to prospective teachers for 12 weeks, 4 hours a week. At the end of the semester, the "Communication Skills Scale" was reapplied as a posttest. It has been determined whether there is a significant difference between the pretest and posttest communication skills scores of the Primary School and Pre-School teachers who took the drama course.

Data Analysis

SPSS package program is used for the analysis of the data obtained as a result of the research. Descriptive statistics such as frequency and percentage were used to evaluate the demographic characteristics of prospective teachers in the analysis of the data. Kolmogorov Smirnov Test has been performed to determine whether the data obtained from the "Communication Skills Scale" display a normal distribution. As a result of the Kolmogorov Smirnov Test, it was determined that the data did not show a normal distribution. Wilcoxon Signed Rank Test was used in the comparison of the difference between two pairs in dependent groups due to the non-normal distribution of data. In the comparison of binary groups, Mann Whitney U Test was applied. The level of significance in the

analysis of data has been accepted as .05. “Cohen d” effect size was calculated for the significant p values.

Results

The findings related to the pretest and posttest scores regarding the communication skills of prospective Primary and Pre-school teachers who take the Drama course are presented in Table 1.

Table 1. Wilcoxon Signed Rank Test Results According to Prospective Primary School Teachers' Communication Skills Scale Sub-Dimensions and Total Pretest Posttest Scores

İBÖ	Measurement	Ort±Ss	The biggest-The smallest	Wilcoxon		
				z	p	d
İİTB	Pre-test	35,17±3,05	40-26	6,970	<0,001	2,916
	Post-test	41,89±4,36	50-32			
KİE	Pre-test	13,61±1,75	16-8	6,861	<0,001	2,866
	Post-test	16,64±2,27	20-11			
EDSOİ	Pre-test	20,84±1,92	24-15	6,967	<0,001	3,008
	Post-test	25,29±2,76	30-20			
İKİ	Pre-test	16,73±2,01	20-12	6,625	<0,001	2,593
	Post-test	20,29±2,57	25-14			
Total	Pre-test	86,36±6,40	98-68	7,170	<0,001	4,746
	Post-test	104,10±10,05	121-81			

When the findings in Table 1 are analyzed, it is observed that the posttest point averages prospective Primary School teachers received from “Communication Skills Scale” in total ($z=7,170$, $p<.05$) and sub-dimensions CPBS ($z=6,970$, $p.05$), SE ($z=6,861$, $p.05$), ELNVC ($z=6,967$, $p.05$), WTC ($z = 6,625$, $p.05$) are significantly higher than the pre-test point averages. At the same time, when the effect sizes of the comparisons with the p value below the significance level are evaluated, it is observed the effect size is large.

The findings related to the pretest and posttest scores regarding the communication skills of prospective Pre-school teachers who take the Drama course are presented in Table 2.

Table 2. Wilcoxon Signed Rank Test Results According to Prospective Preschool Teachers' Communication Skills Scale Sub-Dimensions and Total Pretest Posttest Score

İBÖ	Measurement	Ort±Ss	The biggest-The smallest	Wilcoxon		
				Z	p	d
İİTB	Pre-test	34,76-3,15	25,00-39,00	7,179	<0,001	3,342
	Post-test	41,74-3,96	28,00-50,00			
KİE	Pre-test	14,43-1,39	11,00-16,00	6,862	<0,001	2,867
	Post-test	17,13-1,93	12,00-20,00			
EDSOİ	Pre-test	20,87-2,24	16,00-24,00	7,037	<0,001	3,11
	Post-test	25,49-2,61	19,00-30,00			
İKİ	Pre-test	16,80-1,90	13,00-20,00	6,948	<0,001	2,981
	Post-test	20,21-2,58	14,00-25,00			
Total	Pre-test	86,86-6,08	72,00-97,00	7,273	<0,001	3,512
	Post-test	104,57-8,75	77,00-123,00			

When the findings in Table 2 are analyzed, it is observed that the posttest point averages prospective Preschool School teachers received from “Communication Skills Scale” in total ($z=7,170$, $p<.05$) and sub-dimensions CPBS ($z=7,179$, $p<.05$), SE ($z=6,862$, $p<.05$), ELNVC ($z=7,037$, $p<.05$), WTC ($z = 6,948$, $p<.05$) are significantly higher than the pre-test point averages. At the same time, when the effect sizes of the comparisons with the p value below the significance level are evaluated, it is observed the effect size is large.

The findings related to the pretest and posttest scores based on gender regarding the communication skills of prospective Primary and Pre-school teachers who take the Drama course are presented in Table 3.

Table 3. Mann Whitney U Test Results Regarding the Comparison of Pretest Posttest Scores of Prospective Primary and Pre-School Teachers from CSS by Gender

İBÖ	Measurement	Gender	Ort±Ss	The biggest- The smallest	Mann-Whitney U		
					U	p	d
İİTB	Pre-test	Female	35,26-2,90	25,00-40,00	960,5	0,029	,372
		Male	33,48-3,67	26,00-39,00			
	Post-test	Female	41,94-4,04	28,00-50,00	1169,0	0,319	
		Male	41,17-4,71	32,00-50,00			
KİE	Pre-test	Female	14,13-1,56	8,00-16,00	1066,0	0,109	
		Male	13,48-1,88	10,00-16,00			
	Post-test	Female	16,90-2,14	11,00-20,00	1282,0	0,718	
		Male	16,83-2,01	12,00-20,00			
EDSOİ	Pre-test	Female	20,97-2,04	15,00-24,00	1094,5	0,153	
		Male	20,30-2,24	16,00-24,00			
	Post-test	Female	25,52-2,76	19,00-30,00	1062,0	0,109	
		Male	24,70-2,14	21,00-29,00			
İKİ	Pre-test	Female	16,87-1,96	13,00-20,00	1075,0	0,121	
		Male	16,22-1,83	12,00-19,00			
	Post-test	Female	20,39-2,49	15,00-25,00	1094,0	0,154	
		Male	19,52-2,84	14,00-25,00			
Total	Pre-test	Female	87,22-5,83	68,00-98,00	944,0	0,024	,389
		Male	83,48-7,31	71,00-95,00			
	Post-test	Female	104,75-9,43	77,00-123,00	1074,5	0,127	
		Male	102,22-9,11	88,00-121,00			

Considering the findings in Table 3, there is a statistically significant difference in favor of prospective female teachers taking the drama course for “Communication Skills Scale” pretest CPBS ($U=960,5$, $p <.05$) and in total ($U = 944.0$, $p <.05$). It is seen that there is no statistically significant difference in the scores obtained from the pretest in the other sub-dimensions and the posttest measurements. When the sub-dimensions that- do not differ significantly are examined, it is observed that the female prospective teachers are the majority. At the same time, when the effect sizes of the comparisons with the p value below the significance level are evaluated, it is observed the effect sizes are between medium and small.

The findings related to the pretest and posttest score differences regarding the communication skills of prospective Primary and Pre-school teachers who take the Drama course are presented in Table 4.

Table 4. Mann Whitney U Test Results Regarding the Comparison of Pretest Posttest Scores of Prospective Primary and Pre-School Teachers from CSS by Gender

İBÖ	ort±ss	The biggest-The smallest	u	p
İİTB	6,99±3,48	0,00-15,00	2393,0	0,812
	6,71±4,41	-3,00-18,00		
KİE	2,70±1,64	-2,00-6,00	2251,0	0,399
	3,03±2,01	-1,00-8,00		
EDSOİ	4,61±2,68	-1,00-11,00	2338,5	0,640
	4,44±2,93	-2,00-13,00		
İKİ	3,41±2,40	-1,00-10,00	2395,0	0,817
	3,56±2,92	-3,00-11,00		
Total	17,71±8,03	2,00-38,00	2423,0	0,910
	17,74±10,24	-8,00-50,00		

When Table 4 is analyzed, and the pretest and posttest score differences of prospective pre-school and primary education teachers from the Communication Skills Scale are compared, there was no statistically significant difference observed between the groups ($p > 0.05$).

Discussion, Conclusion and Recommendations

As a result of this study conducted to determine the effect of the drama lesson on the communication skills of the prospective teachers, it is concluded that there is a significant difference between the pretest posttest scores that the primary and preschool prospective teachers obtained from the “Communication Skills Scale” and their sub-dimensions in favor of the posttest. This result showed that drama lessons have a positive effect on the communication skills of prospective teachers. The prospective teachers have always formed a group with different friends and performed the practice. The fact that prospective teachers were in constant contact with themselves, their partners, and group mates in this process for various purposes may have had a positive effect on their communication skills. Yassa (1997) concluded that drama education endowed students with skills such as self-confidence, vindication, controlling their emotions, empathy, and seeing the different thoughts in the group. McNaughton (2004) stated that the drama method is effective on individuals' communication skills and friendship affairs. Jackson and Bynum (1997) found that drama education contributes positively to the social interactions of children with emotional and behavioural disorders. Aykaç and Çetinkaya (2013) highlighted that creative drama activities applied to an experimental group were more effective in improving the speaking skills of prospective teachers than the activities implemented through direct instruction method in the control group. Oğuz Namdar and Çamadan (2016) concluded that the creative drama practices they performed with prospective teachers had a positive significant effect on their social skills. Thanks to Sevim and Turan's (2017) research, it was understood that drama activities were more effective in developing the listening and speaking skills of

6th grade students. In their research, Gökçearsan-Çiftçi and Altınova (2017) determined that creative drama influences social service students' communication skills. Aydın Şengül and Topçuoğlu-Ünal (2018) concluded that the creative drama method improved the communication skills of prospective teachers. Dere (2019), in the study with a semi-experimental design conducted to determine the effect of drama education program applied to prospective teachers on the communication skills of prospective mathematics and primary school teachers, reached the conclusion that the communication skills scores of the prospective primary school teachers in the experimental group were higher than those of the prospective mathematics teachers in the control group. Findings obtained from these studies are in accordance with the results of this study.

The communication skills of prospective teachers who took the drama lesson in the research were statistically different in favor of females in the sub-dimension and pretest of CPBS. When the average scores obtained from the scale are analyzed, it is observed that female prospective teachers had higher scores than the sub-dimensions and total of the communication skills scale. This result showed that drama lessons have a more positive effect on the communication skills of female prospective teachers. Communication skills of women and men may differ (Yüksel, 2009). In some studies, conducted on communication skills, it has been concluded that communication skills differ in favor of women (Gülbahar & Sıvacı, 2018; Kayabaşı & Akcengiz, 2014; Milli & Yağcı, 2017). Communication skills are among the skills that can be improved just like other skills. It is argued that communication skills can be used more effectively with various interventions applied to individuals (Korkut, 2005). The fact that the higher the scores obtained from the posttest according to gender, is due to the drama lessons prospective teachers have attended. It was determined that women have higher communication skills through Kılıçgil, Bilir, Özdiñç, Erođlu and Erođlu's (2009) study with university students, Çetinkaya (2011), Özerbaş, Bulut and Usta (2007) study with prospective teachers. In this context, the findings obtained from the research coincide with the results of this research. It was found that creative drama practices did not show a significant difference in terms of gender on the social skills of prospective teachers in the research conducted by Ođuz Namdar and Çamadan (2016). Akyol, Şenol and Yüksel (2018) also reached the conclusion that drama lessons taken by prospective pre-school teachers do not demonstrate a significant difference in the communication skills in terms of gender. These results do not match the findings of the research.

In the scope of this research, it was concluded that there was no significant difference between the pretest and posttest score differences of prospective pre-school and primary school teachers. It is thought that students in both departments taking the drama lesson with the same content may have diminished the potential difference. In addition, the students of the basic education department prepared the drama activities they designed as course assignments within the scope of the drama lessons in line with the outcomes/indicators in the primary and pre-school education programs in our

country. The fact that they include the processes associated with communication skills in the drama activities they prepared and the opportunity to practice them in the course applications may also have played a role in shaping this result. Dereli (2018), also found that communication and social problem solving skills of basic education and education department students who attended the education program was higher than students who did not attend the education program, in the study through which the author investigated effect of drama and drama-based interpersonal relations education program on the communication skills and social problem-solving skills of university students. Fırat Durdukoca (2015) stated that the drama lesson they took was effective in developing the communication skills of prospective pre-school teachers. Akyol, Kahriman Pamuk and Elmas (2018) asserted that after the drama education they provided to prospective pre-school teachers, students improved their collaboration, communication skills and increased their knowledge about drama. It is observable that the results obtained from all these studies support the findings of the current study. The use of drama, which is a process that enables individuals to establish emotional and cognitive connections with their environment and supports effective communication skills, will provide more effective results if used in every level of teaching (Eckersley, 2016).

In line with the findings obtained through this research, the following suggestions can be made:

New studies using the qualitative or mixed method can be designed to determine the effect of drama on communication skills.

New studies can be conducted in which different variables such as age, grade level, grade point average, etc. of prospective teachers are taken into consideration.

Events and activities such as courses, seminars, conferences, etc. can be organized to improve the communication skills of prospective teachers during the pre-service training.

In the Primary School Teaching undergraduate program renewed by YÖK in 2018, the 2-hour application part of the Drama course was removed, and the lesson hours were reduced to 2 theoretical hours. The course duration of the Drama lessons, which has an important effect on individuals' acquiring and developing the communication skills, can be increased to a total of 4 hours again, as 2 hours of theoretical and 2 hours of practice, like in the old program, and new regulations can be applied.

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A Relational Study of Pre-Service Teachers' Epistemological Beliefs, Educational Philosophy Tendencies and Teaching-Learning Conceptions¹

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Abstract

The aim of this study is to analyze, using a path analysis model, the predictive relationships among pre-service teachers' epistemological beliefs, their educational philosophy tendencies and their teaching-learning conceptions. A relational screening model and predictive correlational design were used in this study. The sample of this study consisted of 1621 pre-service teachers from the faculty of education in a state university in Turkey. The Epistemological Beliefs Scale adapted by Deryakulu & Büyükoztürk (2005), the Teaching-Learning Conceptions Scale adapted by Aypay (2011), and the Educational Philosophy Tendency Scale developed by researchers were all used as data collection tools. Path analysis was used to calculate predictive relationships among pre-service teachers' epistemological beliefs, their educational philosophy tendencies, and their teaching-learning conceptions. Study findings indicate that pre-service teachers' epistemological beliefs and their educational philosophy tendencies are statistically significant predictors of their teaching-learning conceptions. The findings also indicated that pre-service teachers' epistemological beliefs are statistically significant predictors of their educational philosophy tendencies. In this context, predictive relationships among variables were scrutinized and a number of suggestions were made in light of these findings.

Keywords: Epistemological Beliefs, Educational Philosophy Tendencies, Teaching-Learning Conceptions.

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Introduction

Epistemology is a fundamental branch of philosophy which investigates the nature and source of knowledge (Cevizci, 2015a). Beliefs, on the other hand, signify an individuals' sense of self-acceptance that they develop based on events and phenomena they come across in the course of their lifetime (Deryakulu, 2017). Thusly, epistemological beliefs can be defined as individuals' sense of self-acceptance regarding the theory, source, and potentiality of knowledge (Hofer, 2001). Various models related to epistemological beliefs have been developed since the 1960s (Brownlee et al., 2002; Hofer and Pintrich, 1997). Some of these models approached epistemological beliefs from a one-dimensional point of view (Belenky et al., 1986; King and Kitchener, 1994; Kuhn, 1991; Magolda, 1992; Perry, 1968), while Schommer (1990) developed a multi-dimensional model suggesting that epistemological beliefs are not only directly related to beliefs regarding the nature of knowledge but also involve beliefs regarding learning processes. According to this model, people who believe that knowledge is relative and that effort plays an important role during the learning process have developed epistemological beliefs, while people who believe knowledge is absolute and unchangeable and talent plays an important role during the learning process have undeveloped epistemological beliefs (Schommer, 1993).

Schommer's (1990) model, which approaches epistemological beliefs in a multi-dimensional way, closely scrutinized what kind of effects that a sense of self-acceptance derived from the nature of both knowledge and learning had on the learning and teaching process. Hence, many studies in the body of relevant literature (Bedel and Çakır, 2013; Cano, 2005; Chan, 2003; Hofer, 2004; Karataş, 2011; Öngen, 2003; Phan, 2008; Rodrigez & Cano, 2006; Schommer-Aikins and Hutter, 2002) reveal that epistemological beliefs are contingent on a variety of factors such as academic success, meta-cognitive awareness levels, learning approaches, and problem-solving strategies. Another factor tied to epistemological beliefs is individuals' educational philosophy tendencies (Biçer et al., 2013; Kahramanoğlu and Özbakış, 2018; Önen, 2011). Accordingly, Yazıcı (2016) states that an epistemological point of view serves as the basis for most tendencies related to the educational philosophy.

Educational philosophy is a branch of philosophy that develops philosophical proposals and solutions to educational issues (Noddings, 2016). Tezci and Kervan (2019) point out that the educational philosophy plays a role in determining the purpose, extent, and function of education. Tendencies, on the other hand, refer to "a potential quality found in a particular thing or object" (Cevizci, 2015b: 149). Therefore, educational philosophy tendencies can be defined as a perspective that an individual possesses regarding the purpose and function of education. Thus, it is possible that individuals' educational philosophy tendencies have an important effect on the learning and teaching process. Furthermore, many studies in the relevant literature (Akgün, 2015; Duman, 2008; Duman and

Ulubey, 2008; Kozikoğlu and Erden, 2018) show that educational philosophy tendencies are related to a variety of factors in the learning and teaching process such as critical thinking tendencies, abilities to utilize teaching technologies, learning strategies, and critical pedagogical approaches. Another factor related to educational philosophy tendencies is teaching-learning conceptions (Baş, 2015); epistemological beliefs have also been shown to be related to teaching-learning conceptions (Ekinçi, 2017; Tezci et al., 2016; Wong et al., 2009). That is to say, it is clear that epistemological beliefs are closely related to both educational philosophy tendencies *and* teaching-learning conceptions.

Individuals' teaching-learning conceptions constitute a sense of self-acceptance that they developed with respect to the concepts of teaching and learning. These conceptions can be classified into two groups: traditional conceptions and constructivist conceptions (Chan, 2004; Chan & Elliot, 2004; Schunk, 2014). People with constructivist conceptions are active members of the learning process, while people with traditional conceptions are passive members of said process (Brooks and Brooks, 1999; Philips, 1995). It is likely that behind the effects of changes that take place in both epistemological beliefs and educational philosophy tendencies lie individuals' tendencies which make them gravitate towards constructivist rather than traditional conceptions (Özden, 2014). As a result of these changes in epistemological beliefs, a trend towards pragmatism has emerged, taking the place of idealism and realism to a large extent. Taking into account that pragmatism serves as the basis for other branches of contemporary educational philosophies such as progressivism and reconstructionism (Guttek, 2006; Yazıcı, 2016) and that these branches form a base for constructivist teaching-learning conceptions (Aslan, 2018), the change that occurs during the teaching and learning process can be more clearly understood.

Also, in the Turkish education system, traditional conceptions was replaced by constructivist conceptions of learning as of the 2005-2006 academic year (Gür et al., 2013). During the learning and teaching process, teachers with constructivist conceptions of teaching create a positive classroom environment that puts focus on and emphasizes students' interests and needs (Aytaç and Uyangör, 2020; Baş and Beyhan, 2013). Also, students have higher levels of academic success in a learning setting designed in accordance with constructivist conceptions (Ayaz and Şekerci, 2015; Kim, 2005). Thus, it can be said that teachers' teaching-learning conceptions affect the learning and teaching process (Baş, 2014). Teachers' epistemological beliefs (Tezci et al., 2016) and their educational philosophy tendencies (Baş, 2015) constitute the basis for their teaching-learning conceptions. Consequently, both teachers' beliefs about knowledge and the nature of knowledge *and* their philosophical approach toward education are important variables which shed light on their conceptions interiorized during the learning and teaching process.

Teachers' beliefs and conceptions begin to take shape before they start serving as teachers. Thus, the quality of education provided for pre-service teachers in education faculties plays becomes

more prominent as it plays a key role in their development (Doğanay and Sarı, 2003; Pajares, 1992). Teachers with developed epistemological beliefs are inclined more towards contemporary educational philosophies (Biçer et al., 2013) and favor constructivist teaching-learning conceptions (Turan, 2018). In this context, analyzing the correlation among pre-service teachers' epistemological beliefs, their educational philosophy tendencies and their teaching-learning conceptions may provide various clues about the environment that they will create in their classrooms when they start teaching. As Tezci and Uysal (2004) state, individuals' philosophical approaches may shape the way they implement their ideas and curricula.

The body of relevant literature includes studies analyzing the relationship between epistemological beliefs and teaching-learning conceptions (Ekinçi, 2017; Tezci et al., 2016; Wong et al., 2009) and also educational philosophy tendencies (Biçer et al., 2013; Kahramanoğlu and Özbakiş, 2018; Önen, 2011). Although these studies analyzed predictive relationships between teachers' epistemological beliefs and their teaching-learning conceptions, predictive relationships between teachers' epistemological beliefs and their educational philosophy tendencies have not yet been examined. Studies analyzing relationships between teachers' epistemological beliefs and their educational philosophy tendencies focused solely on their reciprocal relationship. Moreover, there are a limited number of studies analyzing the relationship between teachers' educational philosophy tendencies and their teaching-learning conceptions (Aslan, 2018; Baş, 2015). In short, no studies which use a path analysis model to examine predictive relationships among teachers' epistemological beliefs, their educational philosophy tendencies, and their teaching-learning conceptions have been encountered in the current body of relevant literature.

Meydan and Şeşen (2015) suggest that the path analysis model allows researchers to examine not only direct effects among variables but also indirect and total effects among them and to gain a better and clearer understanding of these effects as the model visualizes the analysis as a whole in one image. This study aims to reveal which, if any, dimensions of epistemological beliefs affect pertinent educational philosophy tendencies and teaching-learning conceptions, and, if there are such effects, to find out their scope and extent. Keeping this aspect of the study in mind, it is believed that this study distinguish itself from other studies in the relevant literature. This study will provide a wide variety of perspectives for many people: program development specialists creating teacher training programs, faculty members and instructors putting teaching programs and exercises into practice, and researchers reviewing the body of relevant literature and determining the relationships between the variables in this study and other variables in their own studies. Thusly, the purpose of this study is to analyze the predictive relationships among pre-service teachers' epistemological beliefs, their educational philosophy tendencies, and their teaching-learning conceptions using a path analysis model.

Methods

A relational screening model and predictive correlational design were used in this study. Relational screening models aim to determine the presence and/or level of change between two or more variables (Karasar, 2006). Predictive correlational design was used in order to determine the effects of known variables on unknown variables (Büyüköztürk et al., 2011). Thusly, predictive correlational design was used in this study as the predictive correlations among epistemological beliefs, pre-service teachers' educational philosophy tendencies, and teaching-learning conceptions were examined.

Population and Sample

The population of the study consisted of all pre-service teachers from every class level who were in standard academic programs and degree programs in the Necatibey Faculty of Education at Balıkesir University during the 2017-2018 academic year. As the goal was to reach the entire population, an additional sampling method was not deemed necessary.

The population of the study consisted of approximately 3000 pre-service teachers. However, by the end of the data collection process, analyses had been conducted with only 1621 of them. As in the overall study, all of the pre-service teachers in specific departments were asked to participate. Therefore, reaching a certain percentage of pre-service teachers in specific degree programs wasn't included as an objective; instead, including as many pre-service teachers as possible from each department was set as a goal. Furthermore, there are a different number of pre-service teachers studying in each department, which is a result of the marked variance in pre-service teacher enrollment numbers for individual departments. Hence, the sample size accounted for roughly 55% of the entire population. Özen and Gül (2007) stated that sample size should account for at least 30% of the entire population, meaning that the sample size of this study adequately represents the population. Data from the sample can be found in Table 1.

Table 1: Sample data

Categories	Groups	Frequency (f)	Percentage (%)
Gender	Female	1186	73.2
	Male	435	26.8
Grade level	Freshman	413	25.5
	Sophomore	399	24.6
	Junior	454	28
	Senior	355	21.9
Degree Program / Department	Mathematics and Science Education	572	35.3
	Primary Education	314	19.4
	Turkish Language and Social Sciences Education	284	17.5
	English Language Education	137	8.5
	Guidance and Psychological Counseling	125	7.7
	Computer/Instructional Technologies Education	103	6.4
	Music Education	86	5.3
Total		1621	100

1186 (73.2%) female and 435 (26.8%) male pre-service teachers participated in the study. 413 (25.5%) of the pre-service teachers who participated in the study were freshmen, 399 (24.6%) of them were sophomores, 454 (28%) of them are juniors, and 355 (21.9%) of them were seniors. 572 (35.3%) of pre-service teachers were studying for a degree in Mathematics and Science Education, 314 (19.4%) in Primary Education, 284 (17.5%) in Turkish Language and Social Sciences Education, 137 (8.5%) in English, 125 (7.7%) in Guidance and Psychological Counseling, 103 (6.4%) in Computer/Instructional Technologies Education, and 86 (5.3%) in Music Education.

Data Collection Tools

Epistemological Beliefs Scale

The Epistemological Beliefs Scale was developed by Schommer (1990) and adapted by Deryakulu and Büyüköztürk (2002). Soon after, Deryakulu and Büyüköztürk (2005) re-examined the factor structure of the scale. Results from this subsequent analysis confirmed that the scale consists of 34 items and its factor structure remains unchanged. Sub-dimensions of the scale were named thusly: The Belief of Learning Depends on Effort /BLDE (17 items), The Belief of Learning Depends on Ability /BLDA (8 items), and The Belief of There is Only One True Truth /BOTT (9 items). After conducting reliability analysis, Cronbach's alpha values for the sub-dimensions were calculated to be 0.84, 0.69, and 0.81, respectively (Deryakulu and Büyüköztürk, 2005). A high score on these sub-dimensions indicates that participant beliefs regarding the relevant dimension are stronger. Furthermore, acquiring high scores from the BLDE sub-dimension is a sign of holding developed beliefs, while high scores received from the BLDA and the BOTT sub-dimensions indicate undeveloped/immature beliefs (İlhan et al., 2013).

Educational Philosophy Tendency Scale

The Educational Philosophy Tendency Scale was developed by researchers using two sample groups. One of the groups, which consisted of 535 participants, was subjected to exploratory factor analysis, item analysis, reliability analysis, and confirmatory factor analysis, while only a confirmatory factor analysis was used with the 398-person sample group. The results of the confirmatory factor analysis were used to develop a scale with four dimensions and 36 items. These dimensions were named thusly: Progressive Educational Philosophy Tendency (PREPT), Reconstructionist Educational Philosophy Tendency (REPT), Essentialist Educational Philosophy Tendency (EEPT), and Perennialist Educational Philosophy Tendency (PEPT). After conducting the confirmatory factor analysis with the first sample group, fit values (CMIN/DF: 1.92, RMSEA: 0.041, CFI: 0.92, NNFI: 0.91, GFI: 0.90, AGFI: 0.88, RMR: 0.055, SRMR: 0.058) were found to be within acceptable ranges. Fit values (CMIN/DF: 1.95, RMSEA: 0.049, CFI: 0.91, NNFI: 0.90, GFI: 0.86, AGFI: 0.85, RMR: 0.050, SRMR: 0.058) of the second group also fell within acceptable ranges.

The results gathered from item analysis showed that there were statistically significant differences between the upper 27% and lower 27% of the total group. The results of the reliability analysis revealed that the Cronbach's alpha value for the entire scale was found to be 0.83, while it was calculated as 0.89 for the Progressive Educational Philosophy Tendency (13 items) sub-dimension, 0.84 for the Reconstructionist Educational Philosophy Tendency (9 items) sub-dimension, 0.82 for the Essentialist Educational Philosophy Tendency (7 items) sub-dimension, and 0.66 for the Perennialist Educational Philosophy Tendency (7 items) sub-dimension. High scores on these sub-dimensions indicate stronger tendencies regarding relevant sub-dimensions.

Teaching-Learning Conceptions Scale

Teaching-Learning Conceptions Scale was developed by Chan and Elliott (2004) and adapted by Aypay (2011). 341 pre-service teachers participated in a study conducted with the adapted scale. In the evaluation group, researchers worked with 30 items which were translated into Turkish and edited to ensure that they were grammatically correct. Firstly, confirmatory factor analysis was conducted and, based on the results of the analysis, fit indices of the 30-item scale and its 2 sub-dimensions indicated a partial fit with the model. These two sub-dimensions were called Traditional Teaching-Learning Conceptions (18 items) and Constructivist Teaching-Learning Conceptions (12 items). Reliability analysis results showed that the Cronbach's alpha values of the entire scale were found to be 0.71, 0.88, and 0.83 for the entire scale and the two sub-dimensions, respectively. The split-half correlation value was found to be 0.77. High scores on these sub-dimensions indicate that participants have interiorized the understanding in the relevant sub-dimension (Aypay, 2011).

Data Collection and Analysis

As a first step, before collecting research data, permission was obtained from the researchers who adapted the scales used in this study to use their work. Afterwards, all necessary permissions were received from the institution where this study was conducted, and then, the data was collected personally by the researcher. The study was completed in its entirety during the week of April 16th, 2018-April 20th, 2018. In the first step, researchers created a detailed schedule that contained the class hours and times in which they were going to work with the pre-service teachers. They contacted the course instructors to keep them informed of all developments prior to meeting with the pre-service teachers. It can be stated with certainty that the reason the requisite number of pre-service teachers was not reached was some of the pre-service teachers' nonattendance during the week of the study; put another way, some pre-service teachers skipped class and, consequently, the study as well. During the process of data entry, 26 pieces of data were removed from the data set due to missing and/or incorrect content. The scales that were used in this study only allowed participants to fill out one column, which may produce extreme values. Finally, the data set was tested for normality. Measures of skewness and kurtosis in the data set for sub-dimensions of scales can be found in Table 2.

Table 2. Measures of skewness and kurtosis for sub-dimensions of scales

Sub-dimensions	N	Skewness	Kurtosis
Progressive Educational Philosophy Tendency (PREPT)	1621	-.81	-.12
Reconstructionist Educational Philosophy Tendency (REPT)	1621	-.31	-.50
Essentialist Educational Philosophy Tendency (EEPT)	1621	.67	.20
Perennialist Educational Philosophy Tendency (PEPT)	1621	-.34	.17
The Belief of Learning Depends on Effort (BLDE)	1621	-.00	-.07
The Belief of Learning Depends on Ability (BLDA)	1621	.74	.51
The Belief of There is Only One True Truth (BOTT)	1621	.13	.08
Traditional Teaching-Learning Conceptions (TTLC)	1621	.28	-.20
Constructivist Teaching-Learning Conceptions (CTLC)	1621	-.45	-.08

The values in Table 2 show that skewness and kurtosis in the data set for each sub-dimension range from -1 to +1. Morgan et al. (2004) state that skewness and kurtosis in a data set ranging from -1 to +1 is enough to infer that data is normally distributed. West et al. (1995), on the other hand, claim that in order to have a normally distributed set of data, skewness should be less than 2 while kurtosis should be less than 7. Keeping this in mind, the skewness and kurtosis of data sets in this study were found to be within acceptable ranges and data was deemed to be normally distributed. The data set was checked for extreme values and no problems were found. Path analysis was used to calculate predictive relationships among pre-service teachers' epistemological beliefs, their educational philosophy tendencies, and their teaching-learning conceptions. The path analysis model was examined based on *observed* variables; various fit indices of the model (χ^2/df , RMSEA, CFI, GFI, NNFI, NFI, RMR, and SRMR) were assessed. Shur's (2008) coefficients were utilized in the interpretation of path coefficients. Accordingly, coefficient values less than 0.10 were identified as having a low effect, values between 0.10 and 0.50 as having a moderate effect, and values higher than 0.50 as having a strong effect. The theoretical model can be found in Figure 1.

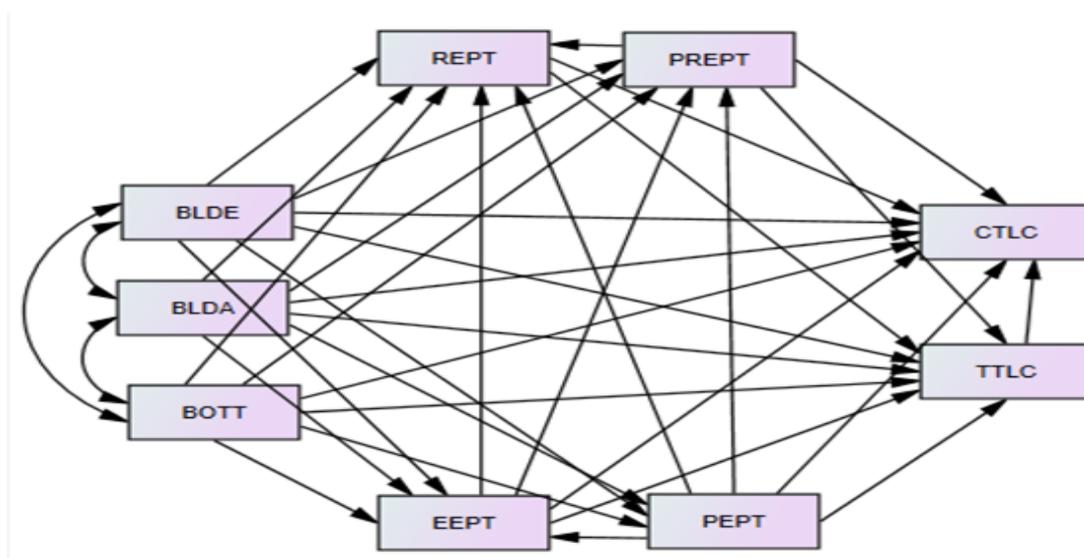


Figure 1. Theoretical model

Findings

After conducting analyses on the evaluation model, paths which did not evince significant effects were removed from the model. Meanwhile, path coefficients of the model were tested to see whether or not they were statistically significant and consequently, seven paths were removed from the model. Data regarding direct effects can be found in Table 3.

Table 3. Measures of direct effects

			Path	t	p
BLDE	→	PREPT	.37	17.672	.000**
BLDE	→	REPT	.20	10.290	.000**
BLDE	→	PEPT	.00	.105	.917
BLDE	→	EEPT	-.06	-2.984	.006**
BLDA	→	PEPT	.08	3.033	.002**
BLDA	→	EEPT	.25	10.816	.000**
BLDA	→	PREPT	-.16	-6.551	.000**
BLDA	→	REPT	.02	.785	.432
BOTT	→	PEPT	.33	12.701	.000**
BOTT	→	EEPT	.10	4.167	.004**
BOTT	→	PREPT	.05	2.191	.028*
BOTT	→	REPT	.01	.495	.621
PEPT	→	TTLC	.26	12.390	.000**
PEPT	→	CTLC	.02	.720	.472
EEPT	→	TTLC	.21	9.550	.000**
EEPT	→	CTLC	-.02	-.844	.399
PREPT	→	CTLC	.47	19.516	.000**
PREPT	→	TTLC	-.14	-5.493	.000**
REPT	→	CTLC	.12	4.863	.000**
REPT	→	TTLC	.05	2.033	.042*
BLDE	→	CTLC	.25	12.942	.000**
BLDE	→	TTLC	.06	2.871	.004**
BLDA	→	TTLC	.21	10.136	.000**
BLDA	→	CTLC	-.08	-3.992	.000**
BOTT	→	TTLC	.27	13.133	.000**
BOTT	→	CTLC	.08	3.675	.000**
PEPT	→	EEPT	.42	19.857	.000**
PEPT	→	PREPT	.10	4.165	.000**
PEPT	→	REPT	.03	1.923	.054
EEPT	→	PREPT	-.26	-11.747	.000**
EEPT	→	REPT	-.02	-1.646	.100
PREPT	→	REPT	.60	31.270	.000**
TTLC	→	CTLC	-.06	-2.666	.008**

*p<.05, **p<.01

Table 3 includes data regarding path coefficients that revealed direct effects among variables and were obtained from the path analysis of the evaluation model. The BLDE dimension was found to have a statistically significant effect on PREPT ($\beta=0.37$, $p<0.01$), REPT ($\beta=0.20$, $p<0.01$), EEPT ($\beta=$ -

0.06, $p < 0.01$), CTLC ($\beta = 0.25$, $p < 0.01$), and TTLC ($\beta = 0.06$, $p < 0.01$), while it didn't have any significant effect on the PEPT ($\beta = 0.00$, $p > 0.05$) dimension. In addition, the effect of the BLDE dimension on PREPT, REPT, and CTLC dimensions was found to be moderate, while its effect on the EEPT dimension was low. The BLDA dimension was found to have a statistically significant effect on PEPT ($\beta = 0.08$, $p < 0.01$), EEPT ($\beta = 0.25$, $p < 0.01$), PREPT ($\beta = -0.16$, $p < 0.01$), TTLC ($\beta = 0.21$, $p < 0.01$), and CTLC ($\beta = -0.08$, $p < 0.01$), while it didn't have any significant effect on the REPT ($\beta = 0.02$, $p > 0.05$) dimension.

In addition, the effect of the BLDA dimension on EEPT, PREPT, and TTLC was found to be moderate, while its effect on the PEPT and CTLC dimensions were low. The BOTT dimension was found to have a statistically significant effect on PEPT ($\beta = 0.33$, $p < 0.01$), EEPT ($\beta = 0.10$, $p < 0.01$), PREPT ($\beta = 0.05$, $p < 0.05$), TTLC ($\beta = 0.27$, $p < 0.01$), and CTLC ($\beta = 0.08$, $p < 0.01$), while it didn't have any statistically significant effect on REPT ($\beta = 0.01$, $p > 0.05$) dimension. In addition, the effect of the BOTT dimension on PEPT, EEPT, and TTLC was found to be moderate, while its effect on the PREPT and CTLC dimensions were low.

The PREPT dimension was found to have a statistically significant effect on CTLC ($\beta = 0.47$, $p < 0.01$), TTLC ($\beta = -0.14$, $p < 0.01$), and REPT ($\beta = 0.60$, $p < 0.01$). The effect of the PREPT dimension on CTLC and TTLC were found to be moderate, while its effect on REPT was high. The REPT dimension was found to have a statistically significant effect on CTLC ($\beta = 0.12$, $p < 0.01$) and TTLC ($\beta = 0.05$, $p < 0.05$). The effect of the REPT dimension on CTLC was found to be moderate, while its effect on the TTLC dimension was low.

The PEPT dimension was found to have a statistically significant effect on TTLC ($\beta = 0.26$, $p < 0.01$), EEPT ($\beta = 0.42$, $p < 0.01$), and PREPT ($\beta = 0.10$, $p < 0.01$), while it didn't have any statistically significant effect on the CTLC ($\beta = 0.02$, $p > 0.05$) and REPT ($\beta = 0.03$, $p > 0.05$) dimensions. The effect of the PEPT dimension on TTLC, EEPT, and PREPT was found to be moderate. The EEPT dimension was found to have a statistically significant effect on TTLC ($\beta = 0.21$, $p < 0.01$) and PREPT ($\beta = -0.26$, $p < 0.01$), while it didn't have any statistically significant effect on CTLC ($\beta = -0.02$, $p > 0.05$) and REPT ($\beta = -0.02$, $p > 0.05$) dimensions. The effect of the EEPT dimension on TTLC and PREPT was found to be moderate. Moreover, the TTLC sub-dimension was found to have a statistically significant and low effect on CTLC ($\beta = -0.06$, $p < 0.01$).

The goodness-of-fit tests (CMIN/DF: 1.557, RMSEA: 0.019, RMR: 0.002, SRMR: 0.006, GFI: 0.99, NFI: 0.99, NNFI: 0.99, CFI: 0.99) for the model showed that the sample data represented a perfect fit (Brown, 2006; Hu and Bentler, 1999; Sümer, 2000; Tabachnick and Fidell, 2001). The percentages that indicate how well variables were explained are as follows: 56% for the CTLC dimension, 53% for the TTLC dimension, 51% for the REPT dimension, 36% for the EEPT

dimension, 31% for the PREPT dimension, and 14% for the PEPT dimension. In addition, Figure 2 presents the standardized path coefficients found among variables.

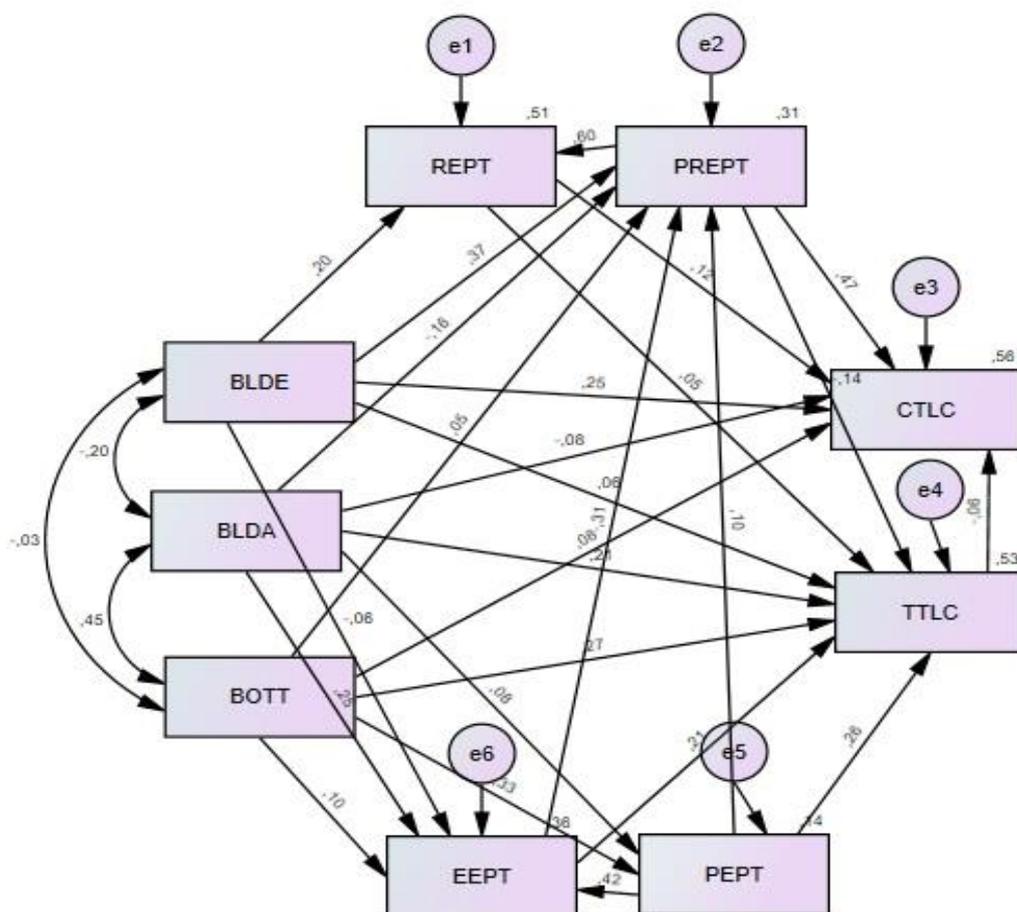


Figure 2. Standardized path coefficients

Indirect effects of the path analysis model are displayed in Table 4.

Table 4. Measures of indirect effects

	BLDE	BLDA	BOTT	PEPT	EEPT	PREPT	REPT	TTLC
PEPT								
EEPT		.03	.14					
PREPT	.02	-.08	-.04	-.13				
REPT	.24	-.15	.00	-.02	-.19			
TTLC	-.05	.11	.13	.09	.03	.03		
CTLC	.24	-.15	-.02	-.04	-.18	.08	-.00	

Based on the analysis results found in Table 4, the BLDE dimension has a positive, moderate, and indirect effect on REPT and CTLC, while it has a negative and indirect effect on TTLC and a positive, low, and indirect effect on PREPT. The BLDA dimension was found to have a negative and indirect effect on both REPT and CTLC, while it has a positive, moderate, and indirect effect on

TTLC. Also, the indirect effect of the BLDA dimension on PREPT was found to be negative and low, while its indirect effect on EEPT is positive and low.

Though the BOTT dimension didn't have an indirect effect on the REPT dimension, it has a positive, moderate, and statistically significant effect on both EEPT and TTLC, while its indirect effect on PREPT and CTLC was found to be negative and low. The PEPT dimension was found to have a negative, moderate, and indirect effect on PREPT, while its indirect effect on both the REPT and CTLC dimensions was negative and low. In addition, the PEPT dimension has a positive, low, and indirect effect on TTLC. The EEPT dimension was found to have a negative, moderate, and indirect effect on both REPT and CTLC, while its indirect effect on TTLC dimension was positive and low. The PREPT dimension was found to have a positive and low effect on both TTLC and CTLC. It is clear that the REPT dimension has no indirect effect on CTLC.

Discussion, Conclusion and Recommendations

A theoretical structure which revealed relationships among pre-service teachers' epistemological beliefs, their educational philosophy tendencies, and their teaching-learning conceptions was tested in this study. It was primarily aimed at bringing the effects of pre-service teachers' epistemological beliefs and their educational philosophy tendencies on their teaching-learning conceptions to light. The effects of pre-service teachers' epistemological beliefs on both their educational philosophy tendencies and the predictive relationships among these tendencies were also investigated.

Study results show that pre-service teachers' epistemological beliefs have a statistically significant effect on their educational philosophy tendencies. The BLDE dimension was found to significantly and positively predict both PREPT and REPT dimensions, while it significantly and negatively predicts EEPT. Based on this finding, it is evident that underlying pre-service teachers' contemporary educational philosophies are epistemological perspectives including beliefs that learning is tied to both effort and process. This being said, BLDA and BOTT dimensions were found to significantly and positively predict both PEPT and EEPT dimensions. Also, the BLDA dimension was discovered to negatively predict the PREPT dimension. Therefore, it can be said that underlying the traditional educational philosophies of pre-service teachers are epistemological perspectives including beliefs that learning is tied to talent and that knowledge is universal and unchangeable. That is to say, pre-service teachers who possess developed epistemological beliefs tend to embrace contemporary educational philosophies, while pre-service teachers with undeveloped epistemological beliefs are inclined to embrace traditional educational philosophies.

The reason why pre-service teachers' epistemological beliefs constitute the basis for their educational philosophy tendencies can be explained by the relationship among different branches of

philosophy. Epistemology, one of the most fundamental fields of philosophy (Cevizci, 2016), serves as a source for many key philosophical movements (Sönmez, 2008). Given that these key philosophical movements provide a basis for educational philosophies (Guttek, 2006), it is evident that epistemology is therefore an important factor in creating hypotheses for educational philosophies. Thus, Manav (2018) states that epistemology is a key element in being able to conceive original educational philosophies. Çüçen (2018), noting that epistemology serves as a source for educational philosophies, emphasizes that educational philosophies differ and become diversified based on epistemological approaches.

According to Yazıcı (2016), beliefs regarding the nature of knowledge reflect philosophical approaches in education. For this reason, pre-service teachers' epistemological beliefs may affect the formation of their educational philosophy tendencies. Thusly, reviews of relevant literature (Biçer et al., 2013; Önen, 2011; Uyangör et al., 2016) show that there are statistically significant relationships between epistemological beliefs and educational philosophy tendencies. For example, studies conducted by Biçer et al. (2013) revealed statistically significant relationships between pre-service teachers' beliefs regarding the importance of both effort and process in learning and their contemporary educational philosophy tendencies.

Epistemological beliefs were found to have a statistically significant effect on teaching-learning conceptions. The BLDE dimension was found to positively predict both the CTLC and TTLC dimensions. Also, the direct effect on TTLC dimension was found to be low, which means that pre-service teachers' constructivist teaching-learning conceptions are based on epistemological perspectives including beliefs that learning is tied to effort and to process. Furthermore, the BLDA and BOTT dimensions were found to positively predict the TTLC dimension, while the BLDA dimension negatively predicts CTLC. These findings indicate that pre-service teachers' traditional teaching-learning conceptions are based on epistemological perspectives including beliefs that learning is tied to talent and that knowledge is universal and unchangeable.

That is to say, pre-service teachers with developed epistemological beliefs often prefer constructivist teaching-learning conceptions while pre-service teachers with undeveloped epistemological beliefs gravitate towards traditional teaching-learning conceptions. Pajares (1992) points out that individuals' epistemological beliefs may affect their sense of self-acceptance regarding the concepts of teaching and learning. Schommer (1990) also puts emphasis on the relationship between epistemological beliefs and teaching and learning processes. Thusly, a variety of studies in the body of relevant literature (Ekinçi, 2017; Tezci et al., 2016; Turan, 2018; Wong et al., 2009) reveal that epistemological beliefs affect teaching-learning conceptions.

Educational philosophy tendencies were found to have statistically significant effects on teaching-learning conceptions. The PREPT dimension was found to positively predict the CTLC

dimension while it negatively predicts the TTLC dimension. Also, the predictive level of the REPT dimension on TTLC was found to be low, while both PEPT and EEPT dimensions positively predicted TTLC. Hence, pre-service teachers' constructivist teaching-learning conceptions were found to serve as a basis for their contemporary educational philosophy tendencies, while their traditional educational philosophy tendencies were based on their traditional teaching-learning conceptions.

Özden (2014) also noted that it is possible to uncover philosophical perspectives when examining the principles of teaching-learning conceptions. Moreover, analyses regarding fundamental principles of constructivist conception emphasize that individuals are active participants in the learning process (Brooks and Brooks, 1999). Taking the idea that pragmatism puts the focus on individuals' interests and needs and constitutes the basis for educational philosophies such as progressivism and reconstructionism as a given (Ornstein and Hunkins, 2014), the effect that contemporary educational philosophies have on constructionist conceptions can be readily understood. Thus, reviews of relevant literature (Aslan, 2018; Baş, 2015) reveal that pre-service teachers' educational philosophy tendencies affect their teaching-learning conceptions.

Statistically significant results were obtained by examining the relationships among pre-service teachers' educational philosophy tendencies. The PEPT dimension was found to have a positive effect on both the EEPT and PREPT dimensions, although its effect on the EEPT dimension was higher. The reason why the PEPT's effect on EEPT is higher can be attributed to the fact that both of these educational philosophies were fostered by similar philosophical movements. Arslan (2017) points out that perennialism and essentialism resemble each other to a great extent. Also, essentialism is an educational philosophy that emerged after perennialism, (Gutek, 2006) indicating that perennialism had an effect on the formation of basic principles of essentialism. In addition, the EEPT dimension was found to have a negative and statistically significant effect on PREPT, which can be ascribed to what is termed traditional-contemporary interaction among educational philosophies.

Gutek (2006) notes that progressivism is an educational philosophy that emerged in response to traditional educational philosophies which place central importance on topics and subjects during the learning process. Moreover, other results obtained from this study show that the PREPT dimension positively affects the REPT dimension. Given that educational principles of reconstructionism are based on pragmatism, which itself fostered progressivism (Ornstein, 1991; Ornstein and Hunkins, 2014), the interaction between these two educational philosophies can be seen more clearly. Thusly, reconstructionists seem to be, to a large extent, under the influence of progressivists while structuring their ideas regarding education (Sönmez, 2008; Turgut, 1992). There is a noticeable trend towards contemporary philosophies among pre-service teachers' educational philosophy tendencies. This trend can be observed when examining their teaching-learning conceptions. Accordingly, the TTLC dimension was found to, albeit slightly, negatively affect the CTLC dimension in this study. Studies in

the relevant literature (Kervan, 2017; Tezci et al., 2016) indicated that pre-service teachers' conceptions evinced a definite trend away from the traditional and toward the contemporary.

As a result, two key findings have been brought to light in this study. Firstly, epistemological beliefs were found to be a factor that affects both educational philosophy tendencies and teaching-learning conceptions. As Hofer and Pintrich (1997) state, this study uncovered the central role that epistemological beliefs play in affecting many factors tied to teaching and learning. Secondly, pre-service teachers' educational philosophy tendencies were also found to affect their teaching-learning conceptions. That is to say, pre-service teachers' epistemological beliefs and their educational philosophy tendencies play an important role in forming and shaping their teaching-learning conceptions. Changes in perspectives regarding the nature of knowledge in the last quarter century have inevitably affected education systems, and, consequently, a constructivist understanding has started to dominate the education systems of many countries. Thusly, the important role that faculties of education play in training constructivist teachers, required for a healthy, functioning education system, is an indisputable fact.

Pre-service teachers' embrace and possession of developed epistemological beliefs ensures that they also possess developed contemporary educational philosophy tendencies and constructivist teaching-learning conceptions. Accordingly, teacher-training programs offered by faculties of education should be designed in a way that contributes to develop pre-service teachers' epistemological beliefs. In this regard, many studies (Brownlee et al., 2001; Feucht et al., 2017) have confirmed that epistemological beliefs can be developed. Keeping this in mind, faculty members can serve as role models for pre-service teachers during their education and training. Teachers' beliefs may have an effect on how their students form their own beliefs (Brownlee, 2004; Kember, 1997). On the other hand, the structural model in this study was only applied to a sample made up of pre-service teachers; therefore, the same structural model can be applied to a sample consisting of in-service teachers.

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Citizenship Consciousness and Moral Values in Civics Textbooks in Turkey (1924-1945)¹

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Abstract

States need education to raise not only citizens but also good citizens. Changes in the concept of citizenship from the past to the present have also been reflected in civic education. While in ancient Greece, the good citizen was identified with being virtuous in the Aristotelian sense, with the emergence of nation-states, the good citizen is now symbolized by a person who is aware of his/her rights and responsibilities, devoted to his/her homeland, and whose national feelings are developed. Textbooks, which are one of the most important carriers of this transformation, form the main axis of our research. Textbooks, which are the tools of educational programs that reflect the social, ideological, cultural, and mental character of countries, have a serious share in the mental development of students, the transformation of their self-existence, and the creation of their personalities. In this context, the role played by textbooks, especially civics textbooks, in raising moral generations can not be overlooked. The aim of this research is to evaluate the six citizenship-themed textbooks prepared between 1924 and 1945, based on the social, political, and cultural atmosphere of the period, and to examine the awareness and importance of citizenship through philosophical questioning. This research was conducted with a case study method from qualitative research designs. Since the time period of the research (1924-1945) was long, six of the civics textbooks obtained by the documentary screening model were selected by the purposive sampling method. Based on the content of these textbooks, categories were created. The examination of the categories shows that the meanings attributed to the concept of "good" of the era in which the Civics Textbooks were written differ. However, in the textbooks examined in the research, there are also points that remain unchanged. It is understood that the students are expected to keep the concepts of land, homeland, and state above all else, and even willingly sacrifice their lives for them if necessary.

Keywords: Textbooks, civics, citizenship consciousness, moral education, values education

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Introduction

The concept of citizenship, which originates from the term "citizien" or "citoyen" (Kadioğlu, 1998) and implies membership to the city-state in ancient Greece defines individual's rights and responsibilities in social status (Yaşar, 2018). The philosophical accumulations of thinkers such as Socrates, Plato, and Aristotle, which shaped the ancient Greek's understanding of the state, also influenced the concept of citizenship today. Unlike philosophers who studied nature, Socrates, who turned to human philosophy, stated that an unquestioned life is not life and believed that one should first know himself. In his book Republic, Plato argued that the ideal state cannot be established unless philosophers are kings or Kings are philosophers Plato (Platon, 2002), who examined the state-citizen relationship down to the smallest detail, integrated the beginning of civic education with infancy and stated that a good citizen is possible with well-educated children. Aristotle defined the concept of the citizen by its legal, political, and administrative duties (Yiğit, 2019). Questioning such concepts as virtue, finding the middle ground, moderation, justice, and tolerance, Aristotle focused on how a "good citizen" should be (Aristoteles, 1997). According to him, a good citizen is conscious of his rights and responsibilities and leads a virtuous life until his last breath. Rousseau, the famous thinker of the Enlightenment, on the other hand, gave the concept of citizenship meaning beyond its era. Rousseau, who believed that a good society can be established with good individuals, prepared an education plan in Emile in accordance with the laws of nature (Kakınç, 1968) and explained why Emile needed education in the following words (2009):

We are born weak, we need strength; we are born totally unprovided, we need aid; we are born stupid, we need judgment. Everything we do not have at our birth and which we need when we are grown is given us by education (p. 109).

As can be understood from the opinions of thinkers, in order to raise good citizens, good children are needed first. So should these good children be described as innately good, as the fruits of the first sin, or as imperfect adults? For example, in the eyes of the medieval man, children were mostly seen as an imperfect adult or a small miniature of adults (Üstel, 2009). What is expected from them is to follow orders unconditionally, that is, to obey (Yavuzer, 2004). However, today, it is attempted to raise children who are subject-oriented, not object-oriented. Well, do good children, who have been raised subject-oriented, lead to good citizens? Or can good citizens who are intended to be educated achieve a happy life? Then, in the most general sense, is the purpose of education to prepare citizens for a happy life? Is a happy life, as Aristotle said, all about finding the middle? Or, as Mill puts it, does education provide the greatest benefit to the greatest people and bring happiness to its stakeholders? Üstel, on the other hand, (2009, p.17-22) asks the following question on this issue: Could morality and patriotism be two virtues that should be cultivated in children? The following can also be added to this question of Üstel: What kind of relationship is there between morality and

patriotism? What is meant with the concept of virtue? Although the purpose of citizenship is to raise moral individuals, can the purpose of morality be to raise good citizens? Can it be said that the purpose of civic education is to help children's moral development, to make them respect and even obey the law, and of course, to raise individuals who are aware of their duties and responsibilities? Similar questions can be reproduced. According to Kadioğlu (2012), on the other hand, Aristotle's tight bond between the good person and the good citizen did not prevent the development of civil society because it predicted that there was no conflict between the individual and the state. In modern societies, however, this bond is blended with national identities, and being a good person has been associated with respecting national interests and national symbols such as flags and anthems. This bond began to be questioned by the democratization process in late modern societies.

The approach towards children in Turkey has been influenced by socio-political, cultural, and political differences. For example, according to Akyüz (2004, p. 260) in previous years, mothers sang lullabies to their children in the form of "sleep and grow, you may be a pasha", however, after the proclamation of the Second Constitutional Monarchy, this lullaby has become "sleep and grow, you may be a deputy". Discourses similar to Akyüz's example were also reflected in the Civics Textbooks that were examined. Obviously, as in the world, the urge to ensure the continuity of the state in Turkey is also defined by the duties and responsibilities of the state towards its citizens and the citizens towards their state (Yiğit, 2019, p. 11).

Civic or citizenship education, which has been placed at the curriculum of European countries since the second half of the 19th century, started to be taught in the formal levels of the Ottoman education system with the course names such as Civil Knowledge, Homeland Knowledge, and Moral Conversations since the Second Constitutional Period when more systematic and holistic developments were experienced in the field of education (Yaşar, 2018). During this period, as Üstel noted (2009), the political and legal modernization that came with the Second Constitutional Monarchy, the transition from community to society and from mechanical solidarity to organic solidarity, defined the individual-citizen in a new political-public sphere. So, while this new citizen was being raised, the civil knowledge course was taught at all levels of education, especially in primary school.

In the early years of the Turkish Republic, the courses that convey moral and patriotic knowledge began to be integrated and taught under the name of Moral Conversations and Homeland Knowledge (Alabaş, 2018). According to Yaşar (2018, p. 328) courses of Civil and Moral Knowledge, i.e. courses of Moral Conversations and Homeland Knowledge, is defined by the minimum knowledge that everyone should know. The Civil Knowledge course focused on the individual's relationship with the public and the law, while the Moral Knowledge lesson described how a citizen can be made virtuous. On the other hand, in the early years of the Turkish Republic, since the education programs

could not be prepared immediately, the curriculum prepared for primary schools in 1914 and 1915 were implemented until 1924. Primary schools have been accepted as the first elementary schools of the Turkish Republic. These schools operate in accordance with the “Educational Directive” issued in 1915, and this directive states that the programs of 1914 and 1915 are taken as basis (Aslan, 2011, p. 723). The Republic cadres wanted to reconsider the education system because they believed that enlightenment would not happen unless the people were turned into citizens. First, educational institutions collected under one roof were made compulsory and free by the law of the Unification of Education (Aslan, 2012, pp. 333-334). Turkish Republic's first curriculum was drafted with the decisions made in the "Second Scientific Board" meeting in 1924. The education program of 1924 did not last long and was implemented for only three years. The rapid preparation of the mentioned program, the lack of connection between the courses, and the repetition of the previous programs at several points (Çelenk, Tertemiz & Kalaycı, 2000), resulted in the preparation of a new curriculum draft in 1926. After the prepared draft was evaluated in selected schools for one year, it was applied in all primary schools in 1927 (Cicioğlu, 1982). On the other hand, in the years 1923-1930, changes were made in the curriculum, especially in primary school, and in 1926, the "Council of Education and Morality" was assigned to prepare and select new textbooks (Çapa, 2012, p. 17).

In the primary school program of 1924, it was decided that the Moral Conversations and Homeland Knowledge courses should be taught for one hour in all primary schools. In the program, it was planned for 1st, 2nd, and 3rd-grade students to take the Moral Conversations course, and for 4th and 5th-grade students to take the Homeland Knowledge course (Maarif Vekaleti, 1924). Through this course, it was aimed to raise moral citizens who adopt the principles of the Turkish Republic and know their rights and duties, and the importance of the Turkish Republic and the necessity of democracy were conveyed to the students (Maarif Vekaleti, 1924). In the primary school curriculum of 1926, the Moral Conversations and Homeland Knowledge courses were replaced with the Civics course without any serious change in its content. It is understood that the content of the Homeland Knowledge course in the curriculum of 1924 was applied in the Civics course in the curriculum of 1926. It was stated that the main purpose of the Civics course in the education program of 1926 is that the young generation of Turkey, a democratic country, has a detailed knowledge of “state, homeland, nation, and nationality” and that the Civics course should be a center that provides a connection with other courses in the program (Yinilmez Akagündüz, 2020). In the primary school curriculum of 1936, which was prepared after ten years of implementation, it was decided that the Civics course would be taught for 2 hours in 4th grade and 1 hour in 5th grade (T.C. Kültür Bakanlığı, 1936).

Citizenship consciousness in Civics textbooks of the Turkish Republican period was studied by (Aslan, 2019; Üstel, 2009; Yaşar, 2018) and the nationalism aspect of the Civics textbooks was studied by Bilgin (1998). Studies on moral values in Civics textbooks are limited (Alabaş, 2018;

Alabaş, 2019; Yinilmez Akagündüz, 2017). This study, which examines the Civics textbooks taught between the years of 1924 and 1945 in the context of citizenship consciousness and moral values, aims to contribute to the field. In this context, the aim of this study is to examine the place of citizenship consciousness and moral values in Civics textbooks taught between 1924-1945.

Method

This section provides information on the research pattern, research material, data collection, and analysis of the data obtained.

Research Pattern

Textbooks, which are the palpable historical reality of curriculums, serve as bridges from the past to the present. This study, which examines the citizenship consciousness and moral values in the Civics textbooks, is a qualitative study. According to Yıldırım and Şimşek (2013, p. 45) qualitative research is defined as "research that uses qualitative data collection methods such as observation, interview, and document analysis and a qualitative process is followed to reveal perceptions and events in a realistic and holistic manner in a natural environment". On the other hand, qualitative research describes the meanings, definitions, characteristic features, metaphors, symbols, and descriptions of objects of the subject matter that form the basis for research (Berg & Lune, 2015). This research was conducted through the case study from qualitative research patterns. A case study consists of an in-depth examination and description of a limited organization (Merriam, 2015) and the Civics textbooks constitute the limited organization of the study. The holistic multi-case model, one of the case study types, was used in the study. In multi-case studies, the cases included in the collection are somewhat categorically linked (Merriam). Similarly, the textbooks sampled in the study were also associated with each other in the context of determining the citizenship awareness. The purpose of using this model is to enable the citizenship consciousness to be examined with a holistic description and explanation in the sampled "Civics" textbook. In this study, which was examined in a holistic way by the pattern of the case study, data based on the current state of the Civics textbooks were obtained.

Research Material

The documents of the research are the Civics textbooks, which were decided to be taught by the Ministry of Education between 1924 and 1945. While in 1924 and before, the Civics course was included in the curriculum under the name of Moral Conversations and Homeland Knowledge; from 1924 to the 1980s, it was named as Civics or the Civics Courses. It was found that, in 1924 and before, Moral Conversations and Homeland Knowledge courses were taught at all levels of primary school, but in 4th and 5th grades, only Homeland Knowledge courses were taught. Therefore, six textbooks used in the 4th and 5th grades were determined using the purposive sampling method (Patton, 2014).

The selection of these textbooks was based on the fact that they were written by different authors and according to different grade levels (4th and 5th grade) between 1924-1945.

Table 1. Identification of the Examined Civics Textbooks

Author	Name of the Book	Grade Level	Year	Printing House
Muslihiddin Adil	Homeland Knowledge	4th grade	İstanbul 1924	Osmaniye Printing House
Mithat Sadullah	Civics	4th grade	İstanbul 1927	Hilal Printing House
Ali Seydi	Civics	4th grade	İstanbul 1932	Burhaneddin Printing House
Maarif Vekaleti	Primary School Books: Civics	4th grade	İstanbul 1935	Government Printing Office
Bedia Ermat and Kemal Ermat	Civics Courses	4th grade	İstanbul 1942	Ministry of National Education (MEB)
Tarık Rona	Civics Courses	4th grade	Ankara 1945	Çankaya Printing House

Data Collection

The data of the study were obtained by the document analysis method. Document analysis is the examination of written documents containing information about events or facts that are planned to be investigated (Yıldırım & Şimşek, 2013). In this context, research data were obtained from Civics textbooks specified in Table 1. In the analysis of the data obtained, descriptive analysis and content analysis were used.

Data Analysis

In the analysis of the data obtained, descriptive analysis and content analysis were used. In the content analysis, four stages were followed, namely “coding data, finding themes, organizing codes and themes, and defining and interpreting the findings” suggested by Yıldırım and Şimşek (2013, p.260). At the first stage, all textbooks were read and codes were created “from within the data” based on each topic title. It has been revealed that some of these codes exist in all textbooks examined. The obtained codes and their inclusion in the textbooks are shown in Table 2:

Table 2. Obtained Codes in the Examined Textbooks

Codes	1924	1927-	1932	1935	1942	1945
Individual and Society	+	+	-	-	-	+
Division of Labor	+	+	-	-	-	-
Right and Duty	+	+	+	+	+	+
Saving	+	-	-	-	-	-
Helping Each Other	+	+	+	-	+	+
Homeland-Nation-Law	+	+	+	+	+	+
Education and Training	+	+	+	+	+	+
Health and Hygiene	+	+	-	+	-	+
Village	+	-	-	+	-	+
Rules to be Followed in Town and City Life	-	+	-	-	-	-
Municipalities	+	+	-	+	-	+

Parliamentary Elections	-	-	+	+	+	+
President	-	+	+	+	+	+
Ministries	-	+	+	+	+	+
Constitution	-	-	-	+	+	+
Tax	-	+	-	+	+	+
Smuggling	-	-	-	-	+	-
Duties of the State	+	+	+	+	+	+
Rights and Responsibilities of Citizens	+	+	+	+	+	+
The Evils of The Sultanate Period	-	+	+	+	-	-
Goodness of The Republican Era	-	+	-	-	+	+
Public Administration	-	+	-	-	+	+
Republican People's Party	-	-	-	-	+	-
Liberty	+	-	-	-	+	-
State Auxiliary Institutions in Turkey	-	-	-	-	+	+
Foreign Relations	-	-	+	+	+	+

In the second stage, based on the codes obtained, the categories of "education and training", "homeland-nation-law", "right and duty", which include citizenship consciousness and moral values, were determined. The basic criterion for placing codes under these three categories is that books contain different discourses, but similar expressions. For example, codes for the category of education and training include information about science, individual-society, school, rules that must be followed in school, and even the ministry of national education. Similarly, when determining the category of homeland-nation-law, in addition to topics related to the title, texts containing the Republican People's Party, freedom, public administration, parliamentary elections, the president, and similar issues were also interpreted. Lastly, when determining the category of rights and duties, contents such as the rights and responsibilities of citizens, duties of the state, the evil of the sultanate period, and the goodness of the republican era were taken as the basis.

In qualitative research, the concepts of credibility and transferability are used instead of the concepts of validity and reliability. Expert review for credibility and detailed description for transferability is also recommended (Yıldırım & Şimşek, 2013). In order to ensure the credibility of the study, expert opinion was taken and cooperation between experts was achieved in the categories that emerged in the content analysis process. The data was examined by a researcher who specializes in textbooks, and by comparing the categories of analysis, a consensus was achieved on topics that are likely to be perceived and interpreted differently. A detailed description approach was also used to ensure the transferability of the research. In the detailed description, each category was discussed and direct quotations from the books were included.

Findings

In this section, the use of moral values in the creation of citizenship consciousness in the categories determined in the sampled textbooks is discussed.

Education and Training

In the textbooks examined, findings were found under the titles of "educational science, science, education, training, school, rules that must be followed in school and the Ministry of National Education" in the category of education and training. In the textbook called Homeland Knowledge published by Muslihiddin Adil in 1924, with the title "educational science", the origin of the concept of science, which is primarily considered as one of the duties of man against himself, has been revealed. Stating that human beings are intelligent by nature and can make inferences, Adil noted that human beings can open doors to new sciences with the language they learned through their intelligence (Adil, 1926). Reminding that this process can only function properly with primary education, Adil made the following comment on the subject (1926):

Gentleman, the first training is the one you see now. With this training, a person learns the information that is the most necessary to him in life. This information is called general information. Everyone has to know a little bit about calculus, geography, geometry, and to have some knowledge about the history of their homeland and the world, to learn about civics that is useful for everyone in life, and to learn their own mother tongue (p. 46)

As can be seen from the above statements, Adil associated the existence of the new state with basic education. In this context, receiving education in the mother tongue, mastering scientific knowledge, keeping up with the times, and building a modern society as a result, are the determining factors. In Mithat Sadullah's Civics Book, the category of "education and training" is under the title of "life at school". Sadullah describes the school as a large family of students and teachers. Stating that children are taught literacy, friendship, cooperation, and military duties at school, Sadullah, criticizes the students who do not do their duty to study as follows (1927): "*The person who does not study will be ungrateful to their country, to their nation, to their beloved Republic, and even to their parents who have spent time and money to send them to school*" (p.38).

The Homeland Knowledge and Civics textbooks prepared in the first years of the Turkish Republic explained the importance of being literate and going to school in order to be useful individuals to the homeland and the nation. While education and training became a means of modernization in the textbooks of the 1920s, in the textbooks of the 1930s, the symbolic character of the government was also included in the modernization process (Yinilmez Akagündüz, 2017). On the other hand, the category of "education and training" was indirectly covered in Ali Seydi's book of Civics prepared in 1932. In his book, the author emphasized not only the importance of being literate or the relationship established between school and family, but also the importance of science and education that will educate the human soul. Seydi approaches the subject in his work as follows (1932):

The people not only enjoy the entertainment but also see many spiritual and intellectual benefits from theaters and cinemas that represent moral, patriotic, and national events with the inclusion of science. And in this way, their souls are trained. That is why experimental events that cannot be explained by talking are shown to students in schools with cinema (p. 95-96).

In the Civics book prepared by the Ministry of Education in 1935, the education and training category was discussed under the title of "Ministry of Education". In this study, it has been explained why knowledge is important in terms of individual and state. According to the book, after learning to read and write and gain the consciousness of the nation and the state, general information that enlightens a person should also be mastered. In contrast to the textbooks that constitute our sample so far, the task of the Ministry of Education is explained in this book as follows (1935):

The main duty of the Ministry of Education is to save the people and their children from ignorance and to train teachers to educate people. Its aim is to help raise the high officials and scientists that the country needs. It is among the duties of the Ministry of Education to open schools to educate people. Our Republican government is doing its best to advance education (p. 42-43).

In this context, it seems that the category of education and training from the Civics Books written in the 1930s is different from the Civics Books written in the 1920s. It seems that the focus is on how the human mind can be nourished rather than the question "Why should we go to school?". This information should be provided to students in a controlled manner. In the Civics book written by Bedia and Kemal Ermat in 1942, it was determined that the category "education and training" was explained under the title of the Ministry of National Education. The title mentioned the contributions of the Turkish Republic to education. In the work, it is explained that individuals can gain the knowledge and skills of the century in primary schools in the context of raising good citizens (1942, p. 81). It has also been explained that the task of the Ministry of National Education is not only to open schools, but also to raise the level of knowledge of the people, to protect the life of science, and to spread fine arts. As can be seen, education has been handled differently than the Civics textbooks written in the 1920s. For example, the Ministry of Education should not only try to make the citizens knowledgeable and moral but also try to make them healthy and sturdy. For this reason, physical education should not be forgotten as well. In addition, the Ermats have integrated the Ministry of Education with printing and publishing activities ranging from popular books to scientific books (Ermata & Ermat, 1942). In the book named Civics Courses written by Tarik Rona in 1945, the following are mentioned in the explanations under the title of the Ministry of Education of the "education and training" category and under the title "What The Turkish Republic Has Given To Us?"(1945):

He shut down the tekkes (lodges) and madrasas and founded today's schools... We started to use the Turkish letters used all over the world by removing the Arabic letters, which are very difficult

to read and learn. Many foreigners easily learned our language and read our books, recognized and understood us. There were almost no illiterate people left in the country. After the Turkish alphabet reform and hat revolution, we also had a major language revolution. In the past, more than half of the language had foreign words in our Turkish language. With thorough research, we found pure Turkish words, discarded foreign words, refined our beautiful language. Today, every citizen and villager can easily understand each other (p.25).

Nevertheless, it is understood that the title of the Ministry of National Education of the book of Civics Courses written in 1945, contains similar discourses with the book called Civics Courses written in 1942. As can be seen from the textbooks examined, the meanings and objectives loaded into education do not remain the same. In fact, according to Tekeli and İlkin (1999, p.195) new instrumentalities reflected in education in parallel with social developments have created new diffusion dynamics, as happened in the language revolution.

Homeland-Nation-Law

Man and land are indispensable elements in the formation of the existence and self-consciousness of a state. Education has created the national identity of a person or citizen, while textbooks have become a means of achieving this goal. But it is not enough to create a nation by giving the citizen a national identity alone. Because these people also need a piece of land with borders drawn, that is, a homeland. In fact, this is the exact point where Rousseau's understanding of private property comes to mind. Rousseau thinks that the demarcated piece of land disrupts the natural good in humans by keeping a distance from the civilized society (Yinilmez Akagündüz, 2012). Rousseau believes that the foundations of civilized society were laid by the first man to enclose a piece of land. According to him, a civilized person showed a piece of land that he enclosed to other people and said, this is mine, thus, private property, legal laws, competition, and wars emerged through pure people who believed in him (here, pure people mean natural people) (Rousseau, 2009). The fact that the first sparks of civilized society and nation-state consciousness extend to the first people who think about having private property makes it clear why the Turkish Republic adopts the concepts of homeland and country. In this case, in order to ensure the continuity of the homeland, citizens who obey the laws of the same land are needed. In short, the relationship between homeland, nation, and the law is the guarantee of the existence and continuity of the state. As a matter of fact, many expressions similar to this narrative have been identified in the “homeland-nation-law” category in the textbooks examined. For example, in the book of Homeland Knowledge written by Muslihiddin Adil in 1924, the concept of Homeland is widely discussed. It has been said that the homeland is not limited to the city or town in which we were born, but to the state itself. Accordingly, we must love our homeland unconditionally as we love our mother (1926) Adil defines the concept of the nation in his book as follows (1926): *“The nation is the life sphere of the people who live in a land and are*

satisfied with the same sovereignty and who, for some reason, left that sovereignty but are still attached to it by heart” (p. 72).

Similar descriptions of Muslihiddin Adil are found in the Civics Books written by Mithad Sadullah in 1927. Ali Seydi described the concept of nation in his Civics Book, written in 1932, as follows (1927, p. 6-10): “*Nation is the name given to the general public of the people whose origin, lineage, mother tongue, emotion, tradition, and general interest are one*”. On the other hand, he described the concept of homeland as “*the places where the Turkish people live and the laws of the Republic of Turkey are applied*”. It is noteworthy that the concept of the Republic of Turkey began to be used in the Civics Books written in 1930 and after, and that they were written with a more scientific and rational narrative compared to the textbooks written in the 1920s. According to Üstel (2009, p. 73) the main emphasis on the concept of the citizen in the textbooks of the Republican Period is actually made to the community of citizens. In other words, the understanding of the citizen in the books is based on the understanding of community citizenship instead of individual citizenship. In fact, citizenship means being a member of an organic integrity, a member of the family. The homeland is considered a common home. On the other hand, Fortna explains that the concept of homeland in the textbooks is based on a geographical and socio-political base with land, language, and historical ties (Fortna, 2013). In this context, in the book of Civics Courses written by Bedia and Kemal Ermat, the concepts of nation, Turkish people, homeland, independence, and obeying the law were integrated as follows (1942):

These lands, which have been home to Turks for centuries, will remain as Turkish homeland as long as the world rolls on. Because every Turk loves and embraces this great land like their own life. This land is the land where millions of Turkish martyrs gladly died for their homeland. Every corner of this country is full of works of Turkish intelligence, labor, and taste. The people who live in this beautiful country, which is unique on earth, are called the Turkish people. Homeland does not just mean the land... Turkey is a great homeland of a great nation. Turks living in this country are called Turkish citizens... Only the Turkish flag is waved in the Turkish homeland. Turks love their homeland very much. They rejoice together in the good that will come to their homes, and they feel heartache together from any evil that will come to their homes. That is, the Turkish people who live in the same land, speak the same language, and whose hearts beat with the same emotion are called the Turkish nation (p. 1-2).

Unlike the textbooks we examined before, only the question of “What is a homeland?” was not answered in the book written by Bedia and Kemal Ermat. In addition to this question, explanations were given about who are called citizens and Turkish citizens in particular. On the other hand, there are similar statements in the work of Tarik Rona which was the last book we examined. In his work, Rona emphasized the sense of national unity and solidarity, explaining not only the homeland, but the

Turkish homeland and not only the nation, but the Turkish nation, and explained the importance of national feelings with the following words (1945): *“If the floods were to overwhelm villages in one corner of the country or if the earthquake were to claim a few lives, we would all deeply be in sorrow. Then we will gladly give half of our loaf to those citizens who have suffered a disaster. Because we live for each other. We all laugh at once, we all mourn at once”* (p. 6).

Right and Duty

In the examined textbooks, the category of "right and duty" was evaluated together with the titles of "duties of the state" and "rights and responsibilities of citizens". Although the narratives are different, it has been found that the textbooks focus on similar definitions of this category. For example, in the book of Homeland Knowledge written by Muslihiddin Adil, in the explanations in the "right and duty" category, the concept of "rights" was questioned first. Adil (1926), explains that every person living in society must adhere to the law so as not to disrupt social harmony. According to him, right or law is related to the rules established for the continuity of social life. In his book, Adil explained the concept of duty in addition to the concept of right (1926):

There is also a duty against the right. In other words, the right and duty are mutual. I respect someone else's right. This is my duty. But it is also my right to not want anyone else to attack my rights. Right and duty are two ideas that cannot be separated from each other. Wherever there is a right, there is a duty. In that case, duty means that the rules that are called rights must be followed. The idea of right and duty is inherent in man. We can know our rights and duties by conscience and common sense. Laws essentially explain in more detail the rules that need to be adopted by people. For example, the law prohibits theft. It commands us to educate our child. These are primarily what our conscience teaches us. In fact, there are many things that are not dictated by the laws and yet, our conscience has taught us. For example, the law does not order us to give alms to the poor. But we know this as a moral obligation and we do it happily (p. 29).

After explaining the concepts of right and duty in his book, Muslihiddin Adil also elaborates on the concepts of "conscience, public opinion, protecting health, law and religion" under the heading of Guardians of Duty. (Adil, 1926). Adil's statements on "right and duty" are not limited to these. The author also briefly explained our duties to ourselves, our family, our teachers, our friends, and our state. The descriptions in the Civics Book written by Mithad Sadullah in 1927 also coincided with Adil's explanations. According to Sadullah (1927), it is one of the greatest duties of the students to study their lessons regularly, that is, not to be lazy. In fact, according to him, mothers and fathers working day and night so that their children go to school should serve as an example for students. In addition, students who do not study regularly and do not do their homework will be ungrateful not only against their parents but also against their homeland, the nation, and the Turkish Republic. In Ali Seydi's Civics Book written in 1932, the category of "right and duty" was collected under the title of

"The Main and Major Duties of the Government, Our Law and Other National Obligations", unlike the books published in the 1920s (Seydi, 1932). In the Civics Book which was written by the Ministry of Education in 1935, the category of "right and duty" was discussed under the titles of "duties of attorneys" and "duties of ministries". As in the books we have reviewed before, it is seen from this book that the greatest duties of students are to study and sacrifice their lives if necessary for the homeland (Maarif Vekaleti, 1935). On the other hand, the book stated that the duty of the attorneys is to carry out the state affairs in accordance with the laws and the duties of ministries are explained to students by separate titles. For example, the duty of the Ministry of Internal Affairs is described in the book as follows (1935):

The governor or officer to advance education in the provinces, open schools, raise the opinion and morality of the people, keep roads in order, protect the health of the public, remove temporary diseases of animals, and do many other things (p. 33).

In the Civics Book written by Bedia and Kemal Ermat in 1942, the category of "right and duty" was articulated under the title of "Duties of the State to Citizens" and described as follows (1942): "*The state protects the citizen's lives, properties and honor. The state protects our country against enemies with its army*" (pp. 25-26). The state protects our rights. The state does all the work it takes for citizens to live in a comfortable environment. Again, unlike other books, the mentioned book also says that citizens have the freedom to think, travel, work, have personal immunity, assembly, form associations, press, acquire property, and learn (Ermata & Ermat, 1942). Citizens' duties to the state, on the other hand, are listed as obeying the laws, paying taxes, performing military service, and exercising the right to vote. In the book, citizens' duties against the state were not only named but also, long explanations were made about each article. For example, under the title of "taxes" in the book, the requirement of citizens to pay taxes is explained as follows (1942):

If we want to live comfortably in our country, we should gladly pay our share of the tax. Paying taxes is a debt for the citizen, and collecting taxes is a right of the state. Everyone who lives, works, earns, and has property in our country pays taxes in the way dictated by the law. The state opens schools and hospitals, supplies its army, builds roads, buys weapons and ammunition with the money collected from the citizens. In brief, the state spends the money it receives from the nation again for the nation (p. 24).

There is a narrative about military service in the book in question (1942): "When your turn comes, you will be a soldier just like your father and your brother, you will then wear that beautiful uniform and take a gun in hand. Just as you love the farming and art tools that enable you to keep food on the table, love the weapons that will protect your homeland's honor and reputation, and respect the soldiers" (p. 34). The nationalist discourse in the quoted statements is more dominant than in other books we have examined. Similar statements are included in many of the textbooks written after 1935.

We obtain the data related to the category of "right and duty" in the Civics Book written by Tarık Rona in 1945, from the title of "Fourth Chapter: State and Citizen". According to the book, the duties of the state for the comfort of the citizens are as follows (1945): "The state protects the homeland from the enemy. The state protects our lives, honor, and property. The state protects our independence. The state seeks our right. The state does many other things" (p. 27-28). Tarık Rona, on the other hand, explains the duties of citizens to the state with the following titles (1945): "Obeying the laws. Paying taxes. Our biggest duty is military service and the army" (p. 28-34). In the Civics Textbooks written in 1942 and 1945, detailed explanations about obeying the laws, paying taxes, and military service duties are presented as the duties of citizens. In both textbooks, it has been deemed indispensable for children to study, to be healthy and to exercise, not only for their own biological or cognitive development but also for the existence and continuity of the state and especially the Turkish Republic. Nationalist discourses are more dominant in these two textbooks than others.

Conclusion and Discussion

Textbooks are not just a combination of pen and paper, but also tools that reflect the power-oriented perspective. In fact, according to Fortna (2013, p. 39) textbooks and teachers are elements used in the creation and use of national identity and loyalty. In the study, the roles of the textbooks, which are considered as the palpable examples of the education system, on the new generations in the process of establishing the nation-state consciousness were revealed. Education is one of the main intervention points for the Turkish Republic, which is trying to rebuild itself after being in wars for a long time. Along with all these, incomplete course schedules, the inadequacy of the instructors (providing literacy training in the military in the first years of the Turkish Republic which still continues today), problems in physical conditions, and, most importantly, the lack of qualification of textbooks have led to painful periods.

According to the findings of the research, for a long time in the early years and after the Turkish Republic, the concept of "school" was indirectly used to include the concepts of home, homeland, and military station. The primary aim expected of children at school is to be good citizens. Being a good citizen is not limited to being illiterate. Students coming to the school were expected to absorb the concepts of homeland-nation and law and to be able to sacrifice their lives for the homeland when necessary. In fact, it is also expected that the new generation should pay attention to their health and do sports in order to become good soldiers in patriarchal positions. Over time, however, the changes in this perspective are reflected in the textbooks. In fact, according to Üstel (2009) during these periods, the child sometimes becomes the future of the nation, sometimes the future of the race. They are tomorrow's manufacturer, soldier and citizen. The children were expected to keep up with the times and develop self-consciousness in textbooks written in 1940 and after. All this shows that the conditions of time and age affect the education system first. Similar statements are made by Alabaş

(2018), in his studies on the moral textbooks of the Republican period. According to Alabaş, a link has been established between the human potential trained with the education policies followed in the first years of the Turkish Republic and civic education. In addition to providing some basic concepts about democracy and human rights with civic education at schools, it is also among the aims to raise awareness, sensitivity and consciousness about the protection and implementation of human rights. For example, in addition to the students' gaining self-awareness, reaching the awareness of “us” in the context of homeland love was supported by the stories and anecdotes used in the textbooks. As a matter of fact, in the Civics Textbooks of the first semester of the Turkish Republic, children, who are the guarantors of today and the future, were asked to be healthy, sturdy and hardworking soldiers for the continuity of the state. In addition, students are asked to take science and reason as guidance in all of the decisions and choices they make. Especially within the time period that constitutes the subject of research (1924-1945), education has been considered as a means of self-acceptance of the newly established state. At this level, the prerequisite for being a good or moral citizen is determined by the fulfillment of the duties of citizens to the state. In the textbooks examined, military service is described as the first and most honorable duty of citizens. While paying taxes, which is the second duty, is equal to morality, tax evasion is considered immoral. Finally, it can be observed in the textbooks that the right to elect and to be elected, which is both a right and a duty, is accepted as the key to a healthy functioning democracy.

As a result, an active stance has been observed since the early dates of the Turkish Republic on how to raise good citizens. The continuity of these concepts is what is expected from the individual in the course of this active stance with the priority of the state, homeland and nation. This course can be clearly viewed in the Civics textbooks written between 1924 and 1945. Strengthening the social, political, and cultural effects of textbooks through different research in the context of citizenship, on the other hand, will provide a better understanding of the subject.

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The Effect of the Use of Discussion Types on the Listening Skills of Convicts / Prisoners in Training-Improvement Activities Applied in Criminal Execution Institutions

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Abstract

Training and rehabilitation activities for convicts and detainees are of utmost importance for a state's national policy in terms of their targeted lives after release. The purpose of this study is to put forward whether socio-cultural activities such as debate, panel, forum, open session used in education and training activities for the rehabilitation works performed for prisoners are effective in practice or not and making detections on the issue that activities related with improving the listening skills of prisoners can be improved or not. This research was carried out with 122 volunteer participants selected with random method from convicts/detainees in penal institutions of Bursa province who graduated from primary school, secondary school, high school and university. The study has been analyzed by five different achievements tests which have been designed by the researcher to measure the ability to understand the listening comprehension success and it has been analyzed with a statistical analysis software. The study reveals that with the use of discussion types the success of convicts/prisoners in listening comprehension has showed a significant difference between pre-test and post-test.

Keywords: Penal execution institutions, Skills of listening, Convictions, Types of discussion

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Introduction

The perception of the concepts of punishment and execution differed in every period of history (Foucault, 1977), the execution of punishments differed in historical periods (Welch, 2005). The main purpose is to regain and socialize an individual whose security measures are applied to him in criminal execution institutions (CEI) (Smit and Snacken, 2009). While this goal is realized, the society is protected indirectly. Overseeing crime and punishment balance, it is extremely important in terms of both reclaiming and regaining the individual who commits a crime and establishing justice.

Historical experience shows us that the prison management approach, which is based on strict security and enforcement, does not show much positive results for the improvement of convicts / detainees. (Smit and Snacken, 2009: 38-41) The strictly binding solid face of the prisons - the understanding of external authority - did not have dissuasive consequences for the individual (Foucault, 1977: 233), White and Fiona (2004: 215). The modern management concept, which has been in effect for a long time in the world, foresees the mission of completing the period of convicts / detainees in the most productive way, and increasing their personal development in social, cultural, mental, physical and professional means and returning them to the society in a beneficial way (Urgan, 2020: 72-74). The point reached in the subjects of sociology and human-social psychology is now in the form of imprisonment by being treated and educated until the time in which prisoners can regain their citizenship rights (McConville, 2000; Akt: Ağcakale, 2010: 63).

Observing an individual who has been involved in a crime or who has been charged with a crime from the moment he / she comes to the criminal execution institution, to be tested in the process, to design and implement appropriate educational plans, in this way it is extremely important to develop the remarkable aspects of the individual in a positive way (Smit and Snacken, 2009: 178-179). Prisons are undoubtedly not independent educational institutions (Smit and Snacken, 2009: 198-204). However, the idea that prisons function as educational institutions is a very functional and important approach. In this respect, considering that each convict / prisoner has a different age, social belonging, education, culture and talent level, it will be necessary to design and implement education plans for each convict / detainee in the axis of interest, need, expectation and benefit.

It is very difficult to think of punishment and accomplish this in a healthy way, just to complete a certain period between the four walls. While the punishment is being executed, it is essential that both the time elapsed and the person can add something positively to themselves during this process. A useful sentence may have positive reflections on individuals. In this process, the individual not only gets rid of crime, but also becomes conscious, develops himself and takes on a completely different identity. The only way to achieve this accumulation will be through educational activities with personal effort. In line with this understanding, it would not be wrong to think of prisons as a school.

Considering these training / improvement activities, one of the most important problems to be solved is activities on listening and speaking. Because convicts / detainees who do not understand what they listen to while explaining their own incentives and listen to them with imperfection in the opposite side find themselves in an environment of verbal conflict. This situation is a frequently encountered one that convicts / detainees in private living spaces with their friends and also through their meetings with the public authorities. Problems such as not understanding what you listen to, designing your own words while communicating, habit of speaking, and not being able to focus on the messages of the other party based on prejudices are frequently observed. Moreover, since a culture of discussion based on the on its principles could not be established, every discussion made results in a fight and unrest. Failure to communicate creates an atmosphere of psychological tension and conflict. As a result, this situation appears as an obstacle to problem solving in criminal execution institutions.

The aim of this study is to reveal that whether social-cultural activities such as debates, panels, conferences, which are used in training and improvement activities and expressed in the training charts in each activity period, contribute to the improvement of convicts / prisoners in practice, whether or not their activities can be improved to make determinations.

Method

In this quantitative study, a single-subject quasi-experimental research method was used, and repeated measurements were made to examine the effect of different dependent variables. In single-subject studies, the functional relationship between the dependent variable and the independent variable is revealed by comparing the application data with the baseline level of the subject (Tekin, 2000). In this experimental study, a single group pre-test-post-test model was applied.

Participants

The participants of this study are randomly selected amongst the prisoners located in prisons in Bursa, namely Bursa E-Type Closed and Open Penitentiary Institution, Bursa H-Type Closed Penitentiary Institution and Yenişehir Female Closed Criminal Execution Institution, excluding terror crime detainees / convicts. 122 convicts / detainees in those institutions voluntarily agreed to participate into this study. However, 26 persons, out of 122 convicts / detainees who had successfully participated participating in the pre-test, did not participate into the post-test application due to the force majeure such as referral / transfer / evacuation. Thus, 96 persons in total participated to the post-test application.

Collection of Data

Data set of the research was procured in the form of the first listening comprehension achievement test (1st LCAT) titled "Crime and Punishment", developed with the opinion of the experts in the field, the 2nd listening comprehension achievement test titled "Family Society and

World Relationship” (2nd LCAT), 3th Listening Comprehension Achievement Test (3rd LCAT) titled “Pain”, 4th Listening Comprehension Achievement Test (4th LCAT) titled “Dangerous Enemies of the Path to Achievement” and 5th Listening Comprehension Achievement Test (5. LCAT) titled “Study the Mortar, Study, Remembering the Fruit of the Work”. Listening texts were chosen in line with adult education rules (taking into account child prisoners / convicts) and within the framework of the education-improvement vision envisaged to be implemented in criminal execution institutions. These achievement tests are arranged in accordance with the content of the texts played and the acquisition gains. Before applying achievement tests, information such as the subject and purpose of the research, what the tests do and how they should be answered were given, and the questions of the participants were answered.

Data Collection Tools

In order to determine the effect of the use of discussion types in the training and improvement activities of convicts/detainees accommodated in criminal execution institutions, five different listening comprehension tests, which appeal to different values, have been developed. The texts used in the achievement tests with the values to be processed during the application process were presented to the expert opinion and were selected in harmony. 1th Listening Achievement Achievement Test (1st LCAT) titled “Crime and Punishment”: It was created considering the levels of convicts / detainees for the value of justice. 2th Listening Achievement Test (2nd LCAT) titled “Family Society and World Relationship”: It was created considering the levels of convicts / detainees for family value. 3th Listening Achievement Test (3rd LCAT) titled “Pain”: It was created considering the levels of convicts / detainees for empathy value. The 4th listening comprehension achievement test (4th LCAT) titled “Dangerous Enemies of the Path to Achievement”: It was created considering the levels of convicts / detainees for achievement value. The 5th listening comprehension achievement test (5th LCAT) titled “Study the Mortar, Study, Remembering the Fruit of the Work”: It was created by considering the levels of convicts / detainees for the diligence value.

Findings for Validity and Reliability Studies of Achievement Tests Used in the Research

In order for the achievement tests used in the research to be highly valid and reliable, a reliable achievement test was created and applied to convicts / detainees by providing the achievement test development steps and conditions. For this reason, item analysis was conducted to ensure the structural validity of the test items, and item discrimination indices and difficulty levels calculated in the item analysis are given in Table 1.

When the table is examined, it can be seen that the difficulty indexes of the tests ranged between 0.25 and 0.94, and the discrimination indexes ranged between - 0.50 and 1.00. High item discrimination increases the validity of the test. If the item's discrimination index is 0.40 and above,

the item is very good, if it is between 0.30-0.39, the item is quite good, if it is between 0.20-0.29, the item can be used in mandatory cases, but it needs to be corrected and improved. If the item is 0.19 and smaller, it is very weak, if it cannot be improved by corrections, it should be removed from the test (Turgut, 1995; Akt: Tekin, 2000).

In the item analysis made after the items are removed, the KR-20 value is calculated to see if the test is reliable. The Kuder-Richardson 20 formula is a special form of the Cronbach alpha coefficient used for two-choice items. In the knowledge tests, Kuder-Richardson formulas can be used after encoding correct answer 1 and false-empty answers 0 (Henson, 2001; Akt: Bademci, 2011).

Table 1. Discrimination Indices (d) and Difficulty Levels (p) of the Items in Preliminary Pilot Application of Achievement Tests No 1, 4 and 5

S	G	1st LCAT								4th LCAT								5th LCAT							
		A	B	C	D	E	B/D	p	d	A	B	C	D	E	B/D	p	d	A	B	C	D	E	B/D	p	d
1	Top	1	7	0	0	0	0/8	0,7	0,4	0	0	8	0	0	0/8	0,5	1	7	1	0	0	0	0/8	0,6	0,6
	Bottom	2	4	1	1	0	0/8			2	3	0	3	0	0/8			2	2	1	3	0	0/8		
2	Top	0	7	1	0	0	0/8	0,8	0,3	8	0	0	0	0	0/8	0,8	0,5	0	8	0	0	0	0/8	0,6	0,8
	Bottom	1	5	1	1	0	0/8			4	2	2	0	0	0/8			2	2	4	0	0	0/8		
3	Top	1	0	7	0	0	0/8	0,6	0,6	7	0	0	1	0	0/8	0,6	0,5	8	0	0	0	0	0/8	0,6	0,8
	Bottom	2	3	2	1	0	0/8			3	2	3	0	0	0/8			2	3	2	1	0	0/8		
4	Top	0	0	0	8	0	0/8	0,7	0,6	0	1	7	0	0	0/8	0,6	0,6	0	0	0	8	0	0/8	0,6	0,9
	Bottom	3	0	2	3	0	0/8			2	3	2	1	0	0/8			0	3	4	1	0	0/8		
5	Top	4	1	3	0	0	0/8	0,3	0,3	0	8	0	0	0	0/8	0,7	0,6	0	0	8	0	0	0/8	0,6	0,8
	Bottom	3	4	1	0	0	0/8			1	3	3	1	0	0/8			3	1	2	2	0	0/8		
6	Top	8	0	0	0	0	0/8	0,6	0,8	1	6	0	1	0	0/8	0,5	0,5	3	5	0	0	0	0/8	0,6	0
	Bottom	2	3	2	1	0	0/8			4	2	1	1	0	0/8			2	5	1	0	0	0/8		
7	Top	6	0	2	0	0	0/8	0,6	0,3	0	0	0	8	0	0/8	0,6	0,8	0	0	0	8	0	0/8	0,5	1
	Bottom	4	1	3	0	0	0/8			2	2	2	2	0	0/8			3	2	3	0	0	0/8		
8	Top	0	0	8	0	0	0/8	0,9	0,3	0	8	0	0	0	0/8	0,6	0,8	0	7	0	1	0	0/8	0,5	0,8
	Bottom	0	1	6	1	0	0/8			0	2	1	5	0	0/8			2	1	2	3	0	0/8		
9	Top	0	0	8	0	0	0/8	0,7	0,6	8	0	0	0	0	0/8	0,6	0,8	0	0	8	0	0	0/8	0,6	0,9
	Bottom	2	2	3	1	0	0/8			2	0	4	2	0	0/8			2	3	1	2	0	0/8		
10	Top	7	1	0	0	0	0/8	0,6	0,6	8	0	0	0	0	0/8	0,6	0,8	0	0	8	0	0	0/8	0,8	0,5
	Bottom	2	4	1	1	0	0/8			2	4	0	2	0	0/8			3	1	4	0	0	0/8		
11	Top	0	1	0	7	0	0/8	0,5	0,8	2	0	6	0	0	0/8	0,4	0,6	0	0	0	8	0	0/8	0,6	0,8
	Bottom	0	5	2	1	0	0/8			2	5	1	0	0	0/8			1	2	3	2	0	0/8		
12	Top	0	0	0	8	0	0/8	0,6	0,8	0	0	2	6	0	0/8	0,5	0,5	8	0	0	0	0	0/8	0,7	0,6
	Bottom	3	2	2	1	0	0/8			3	3	0	2	0	0/8			3	3	1	1	0	0/8		
13	Top	0	0	0	8	0	0/8	0,6	0,9	0	0	0	8	0	0/8	0,7	0,6								
	Bottom	2	2	3	1	0	0/8			2	2	1	3	0	0/8										
14	Top	0	1	1	6	0	0/8	0,4	0,6	0	0	7	1	0	0/8	0,5	0,8								
	Bottom	1	1	5	1	0	0/8			1	3	1	3	0	0/8										
15	Top									0	4	1	3	0	0/8	0,4	0,3								
	Bottom									2	2	1	3	0	0/8										
16	Top									0	0	0	8	0	0/8	0,6	0,8								
	Bottom									3	1	2	2	0	0/8										

p: Difficulty level of items, d: Discrimination Indices, B: Empty, D: Full

Table 2. Distribution of Questions According to Preliminary Pilot Item Discrimination Index Values of 1, 4, 5 Achievement Tests

	1st	D value	Total
LCAT		0,40 and more (very good)	9 (3, 4, 6, 9, 10, 11, 12, 13, 14)
		0,30-0,39 (excellent)	1 (1)
		0,20-0,29	4 (2, 5, 7, 8)
		0,19 and less	-
LCAT	4th	0,40 and more	15 (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 16)
		0,30-0,39	-
		0,20-0,29	1 (15)
		0,19 and less	-
LCAT	5th	0,40 and more	11 (1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 12)
		0,30-0,39	-
		0,20-0,29	-
		0,19 and less	1

As a result of the trial application, the answers given by the convicts / prisoners to the questions were examined and the correct answers were scored as "1" and the wrong answers were scored as "0". As a result of validity and reliability analysis of achievement tests, item discrimination and item difficulty index were calculated for each item. Items with a discrimination index of 0.40 and higher, and items between 0.30-0.39 were used in the test without any changes. Items with a discrimination index between 0.20 and 0.29 were tested after appropriate changes were made. 0.19 and smaller items were removed from the test.

Then, with the pilot application, achievement tests consisting of 14, 16 and 11 questions were applied to 96 convicts / detainees, and the item analysis was repeated. The discrimination index scores that emerged according to the item analysis are presented in Table 3.

The reliability of the tests was calculated using the Kuder-Richardson 20 (KR-20) formula on 14, 16 and 11 items, respectively. KR-20 reliability coefficient of 1st test is 74. KR-20 reliability coefficient of the 4th achievement test is 80. Accordingly, the KR-20 reliability coefficient of the 5th achievement test is 79. It can be said that the achievement tests numbered 1, 4 and 5 are valid and reliable tests.

Table 3. Item Analysis According to the Number of Correct Answers of Students in the Lower and Upper Groups of the Pilot Application Result of Achievement Tests No 1, 4 and 5

Question no	1 st LCAT				4 th LCAT				5 th LCAT			
	Ug	Lg	p	d	Ug	Lg	p	d	Ug	Lg	p	d
1	16	9	0,48	0,27	23	6	0,56	0,65	21	10	0,6	0,42
2	24	12	0,69	0,46	26	8	0,65	0,69	26	7	0,64	0,73
3	24	5	0,56	0,73	23	10	0,64	0,5	26	6	0,62	0,77
4	20	9	0,56	0,42	23	6	0,56	0,65	20	4	0,46	0,62
5	7	2	0,19	0,2	25	8	0,64	0,65	23	4	0,52	0,73
6	25	5	0,58	0,77	13	4	0,33	0,35	26	2	0,54	0,92
7	18	4	0,42	0,54	26	3	0,56	0,89	24	1	0,48	0,89
8	25	13	0,73	0,46	22	6	0,54	0,62	22	7	0,56	0,58

9	26	9	0,67	0,65	25	2	0,52	0,89	26	9	0,67	0,65
10	24	8	0,62	0,62	26	7	0,64	0,73	25	3	0,54	0,85
11	24	1	0,48	0,89	18	3	0,4	0,58	25	9	0,65	0,62
12	25	11	0,69	0,54	20	4	0,46	0,62				
13	25	5	0,58	0,77	25	3	0,54	0,85				
14	20	9	0,56	0,42	23	7	0,58	0,62				
15					13	6	0,37	0,27				

Ug: Top group, Lg: Bottom group, p: Difficulty level of items, d: Discrimination Indices

Application Process

The application of the research was done in 8 weeks and 48 hours for each institution. Within the scope of the application studies, 5 listening comprehension achievement tests were applied as pre-test and data were collected. In the 8-week application, lesson plans were prepared according to the 7E model and the course contents were designed according to the values education. Each type of discussion is designed by associating it with the value of that month. Lessons are planned by associating with debate-justice, panel-family, forum-empathy, open session-achievement, symposium-diligence. During the application period, participants left the study due to force majeure (referral, transfer, evacuation, etc.) and after the application process, the study was finalized by applying post-tests to 96 participants. Achievement tests used in the application process are within the scope of values education and chosen in relation to the discussion topics.

Data Analysis

In the research, firstly, demographic characteristics of the participants were examined. In this context, parametric and nonparametric tests were analyzed to test the hypotheses of the research.

Whether the data are suitable for normal distribution was examined with the Shapiro Wilk test. With the Kolmogorov-Smirnov test, it is possible to examine whether the data collected from a sample show normal distribution (Altunışık et al., 2001: 165). The significance level of the result value of the Kolmogorov-Smirnov test is greater than 0.05 indicates the suitability of the data for normal distribution (Karaatlı, 2010: 10). Descriptive statistics for continuous variables are given in those who are suitable for normal distribution (mean \pm standard deviation) and those who are not suitable for normal distribution (median (minimum-maximum)). Descriptive statistics for categorical variables are given as frequency and percentage. In order to determine the significant difference according to the variables for the hypotheses, the t-test which is parametric in those who show normal distribution in cases where two groups are present in independent group comparisons of continuous variables, the non-parametric Mann Whitney U test in those who do not comply with normal distribution and in the case of more than two groups. One-Way ANOVA test, which is parametric, was used, and non-parametric Kruskal Wallis test was used for those who did not conform to normal distribution. When there was a significant difference in the parametric One-Way ANOVA test, the post hoc Tukey test

was used to determine which groups the difference was between. When a significant difference was found in the nonparametric Kruskal Wallis test, the non-parametric Mann Whitney U test was used to determine which groups the difference was between.

Reliability of achievement tests in this study was found by making item analysis and calculating KR-20 values. In addition, in the test of the hypotheses included in the study, α value was taken as 0.05. Therefore, the analysis results in the study were interpreted at the 95% confidence level. The analyzes in the study were obtained by using statistics program.

Results

1-Demographic Findings of the Research

In the research, the following findings related to the socio-demographic characteristics of the participants were reached.

Table 4. Distribution of Some Socio-demographic Characteristics of Convicts / Prisoners

Socio-demographic Features		Number (n)	Percent (%)
PRISON	Yenişehir Female Closed CEI	39	40,6
	Bursa E Type CEI	24	25
	Bursa Open CEI	5	5,2
	Bursa H Type CEI	28	29,2
GENDER	Female	39	40,6
	Male	57	59,4
AGE	15-18	13	13,5
	18-21	14	14,6
	21-65	69	71,9
MARITAL STATUS	Single	46	47,9
	Married	38	39,6
	Other	12	12,5
CHILDREN	Existend	49	51
	Absent	47	49
EDUCATION	Primary School	20	20,8
	Middle School	23	24
	High School	27	28,1
	University	26	27,1
INCOME	Monthly regular income	43	44,8
	Partially regular income	17	17,7
	Unstable	7	7,3
	Irregular income	29	30,2
ACTIVISM	Not benefiting	12	12,5
	Partly benefiting	37	38,5
	Benefiting	34	35,4
	Completely benefiting	13	13,5
ACTIVITY	Existend	70	72,9
CONFERENCE	Absent	26	27,1
ACTIVITY	Existend	15	15,6
DEBATE	Absent	81	84,4
ACTIVITY	Existend	5	5,2
FORUM	Absent	91	94,8
ACTIVITY	Existend	8	8,3
PANEL	Absent	88	91,7
ACTIVITY	Existend	28	29,2

COURSE	Absent	68	70,8
ACTIVITY	Existend	9	9,4
CINEMA	Absent	87	90,6
NUMBER OF BOOKS	1-5	25	26
	6-10	19	19,8
	10-15	16	16,7
	16-20	14	14,6
	Over 20	22	22,9
PUBLICATION FOLLOW-UP	Yes	52	54,2
	No	44	45,8
PRISON TYPE	Opened	5	5,2
	Closed	91	94,8

Table 4 shows the distribution of convicts / detainees living in criminal execution institutions according to their demographic characteristics.

2-Significance of Achievement Tests

The results of the 5 achievement tests developed are analyzed according to pre-test and post-test. The pre-and post-trial scores of the convicts/detainees who participated in the study from the listening comprehension achievement tests are given in the tables below.

Table 5. Wilcoxon Signed Ranks Test Results of Understanding Achievement Test Pre-test and Post-test Scores*

Pre-Test- Post-Test	N	Rank Average	Ordinal Sum	Z	P
Negative Rank	32	46,25	1480	-2,291	0,022
Positive Rank	58	45,09	2615		
Equal	6	-	-		

* Based On Negative Rows

According to the test results given in Table 5, there is a significant difference between the pre- and post-trial scores of the convicts/detainees taking the achievement Test titled Crime and Punishment ($p < 0.05$). When sequence totals of difference scores are taken into account, this observed difference appears to favor positive rows, the final test score. According to these results, it can be said that the education was productive.

Table 6. Wilcoxon Signed Ranks Test Results of Understanding Listening Achievement Test Pre-test and Post-test Scores

Pre-test- Post-test	N	Rank Average	Ordinal Sum	Z	p
Negative Rank	38	36,88	1401,50	-1,391	0,164
Positive Rank	44	45,49	2001,50		
Equal	14	-	-		

According to the test results given in Table 6, it is seen that there is no significant difference between the scores of the convicts / detainees participating in the research before and after the

experiment they received from the 2nd listening comprehension achievement test ($p > 0.05$). According to the results, it can be said that the training did not change the achievement of convicts / detainees.

Table 7. Wilcoxon Signed Ranks Test Results of Understanding Listening Achievement Test Pre-test and Post-test Scores

Pre-test- Post-test	N	Rank Average	Ordinal Sum	Z	P
Negative Rank	35	45,81	1603,50	-0,986	0,324
Positive Rank	50	41,03	2051,50		
Equal	11	-	-		

According to the test results given in Table 7, it is seen that there is no significant difference between the scores of the convicts / detainees participating in the research before and after the experiment they got from the 3rd listening comprehension test ($p > 0.05$). According to the results, it can be said that the training did not change the achievement of convicts / detainees.

Table 8. Wilcoxon Signed Ranks Test Results of Understanding Listening Achievement Test Pre-test and Post-test Scores

Pre-test- Post-test	N	Rank Average	Ordinal Sum	Z	P
Negative Rank	27	44,59	1204	-2,003	0,045
Positive Rank	53	38,42	2036		
Equal	16	-	-		

According to the test results given in Table 8, it is seen that there is a significant difference between the scores of the convicts / detainees participating in the research before and after the experimental scores ($p < 0.05$). When the rank totals of the difference scores are taken into consideration, it is seen that this observed difference is in favor of the Positive Rank, the post-test score. According to these results, it can be said that the education provided was productive.

Table 9. Wilcoxon Signed Ranks Test Results of Understanding Listening Achievement Test Pre-test and Post-test Scores

Pre-test- Post-test	N	Rank Average	Ordinal Sum	Z	P
Negative Rank	38	30,00	1140	-2,457	0,014
Positive Rank	43	50,72	2181		
Equal	15	-	-		

According to the test results given in Table 9, it is seen that there is a significant difference between the pre-test and post-test scores of convicts / detainees participating in the study from the 5th listening comprehension achievement test ($p < 0.05$). When the rank totals of the difference scores are taken into consideration, it is seen that this observed difference is in favor of the positive ranks and post-test points. According to these results, it can be said that the education provided was productive.

3-Evaluation of Findings Related to the Pre-test and Post-test Achievement Scores According to the Demographic Features of the Participants

Below are the results of pre-test and final-test achievement scores before listening activities based on discussion types based on demographics of prisoners/detainees who participated in the study. In the case of the two groups, showing conformity to a normal distribution the parametric t-test to show conformity to a normal distribution non-parametric Mann-Whitney U test for showing conformity to a normal distribution in the case of more than two groups parametric one-way ANOVA test, normal distribution show compliance non-parametric Kruskal-Wallis test was applied.

3.1. Evaluation of pre-test and post-test achievement scores by Participants

Table 10. Findings Regarding One-Way ANOVA Test Results According to Participants Variable Between LCAT Pre-test Scores and Post-test Scores

Participants	Pre-test					Post-test					Significant Difference
	N	Avg±Std. Deviation (x̄ ±sd)	Sd	F	P	N	Avg±Std. Deviation (x̄ ±sd)	Sd	F	P	
Yenişehir Women Closed CEI	39	2,47±0,23	3	0,68	0,566	39	2,57±0,22	3	3,211	0,027	1-4
Bursa E Type CEI	24	2,38±0,27				24	2,55±0,19				
Bursa Opened CEI	5	2,43±0,13				5	2,40±0,23				
Bursa H Type CEI	28	2,41±0,27				28	2,42±0,27				

According to the characteristics of convicts / detainees in Table 10, there is no significant difference between 1st LCAT pre-test achievement score variable according to the participants variable, because $p = 0.566$ and 0.05 is more than the variable of participants. There is a significant difference between the 1st LCAT post-test achievement score variable according to the participants variable since $p =$ less than $0,027$ and $0,05$ for the 1st LCAT post-test achievement score variable. The difference was caused by convicts / detainees living in Yenişehir Woman Closed CEI.

Table 11. Findings Regarding Kruskal Wallis Test Results According to Participants Variable Between LCAT Pre-test and Post-test Scores

Participants	Pre-test					Post-test				
	N	Median (min-max)	Sd	X^2	p	N	Median (min-max)	Sd	X^2	p
Yenişehir Women Closed CEI	39	2,50 (2,00-3,00)	3	1,463	0,691	39	2,5 (2,31-2,75)	3	1,198	0,753

Bursa Type CEI	E	24	2,38 (2,19-3,06)	24	2,5 (2,13-3,00)
Bursa Opened CEI		5	2,50 (2,25-2,75)	5	2,56 (2,38-2,75)
Bursa Type CEI	H	28	2,44 (2,00-2,81)	28	2,5 (1,63-3,06)

According to the characteristics of convicts / detainees in Table 11, there is no significant difference for the 4th LCAT pre-test achievement score variable since $p = 0,691$ and more than 0.05. There is no significant difference for the 4th LCAT post-test achievement score variable since $p = 0,753$ and more than 0.05.

Table 12. Findings Regarding Kruskal Wallis Test Results According to Participants Variable Between 5th LCAT Test Pre-test and Post-test

Pre-test						Post-test						
Participants	N	Median (min-max)	Sd	X^2	p	Significant Difference	N	Median (min-max)	Sd	X^2	p	Significant Difference
Yenişehir Women Closed CEI	39	2,36 (1,64-2,82)	3	14,487	0,002	1-4	39	2,45 (1,82-2,91)	3	8,085	0,044	2-4
Bursa Type CEI	E 24	2,27 (1,64-2,82)				2-4	24	2,55 (2,18-2,82)				3-4
Bursa Opened CEI	5	2,55 (2,36-2,64)					5	2,82 (2,36-3,00)				
Bursa Type CEI	H 28	2,55 (2,09-2,91)					28	2,36 (1,91-2,82)				

Table 12 shows the averages of 5th LCAT pre-test and post-test achievement scores for the participants characteristics of convicts / detainees. Since the p-test achievement score variable is less than $p = 0.002$ and 0.05, there is a significant difference according to the participants variable. The difference was caused by convicts / detainees living in Bursa H Type CEI. For the LCAT post-test achievement score variable, there is a significant difference compared to the participants variable since $p = 0.044$ and less than 0.05. The difference was caused by convicts / detainees living in Bursa Açık CEI.

4- Evaluation of Pre-test and Post-test Achievement Points According to the Conference Activity

As a result of the normality test, since the 1st LCAT pre-test and the 4th LCAT pre-test data were observed to come from the normal distribution, it was analyzed with the t-test, which is a parametric test type and used to test the variables in which the two groups are involved. As a result of the normality test, it was observed that the data of the 1st LCAT post-test, the 4th LCAT post-test, and

the 5th LCAT pre-test and post-test did not come from the normal distribution. Therefore, for these tests, the Mann Whitney U test, which is a non-parametric test type and used to test the variables in which the two groups are involved, is used.

Table 13. Findings Regarding 1st LCAT Pre-test T-Test Results According to Conference Activity Variable and Findings Regarding Post-test Mann Whitney U Test Results

	Participation status	Pre-test					Post-test			
		N	Avg±Std. Deviation	Sd	t	p	N	Median(min-max)	U	p
Conference Event	participating	70	2,44±0,26	94	-0,51	0,611	70	2,57(1,93-2,86)	793	0,033
	unable to attend	26	2,41±0,21				26	2,50(2,21-3,14)		

Since $p = 0,611$ and $0,05$ for Table 1 in the 1st LCAT pre-test, there is no significant difference according to the conference activity variable. Since $p =$ less than $0,033$ and $0,05$ for the post-test, there is a significant difference between the post-test achievement score variable according to the conference activity variable.

Table 14. Findings Regarding 1st LCAT Pre-test T-Test Results According to Conference Activity Variable and Findings Regarding Post-test Mann Whitney U Test Results

	Participation status	Pre-test					Post-test			
		N	Avg±Std. Deviation	Sd	t	p	N	Median(min-max)	U	p
Conference Event	Participating	70	2,47±0,23	94	-0,117	0,907	70	2,51(1,63-3,06)	825	0,044
	Unable to attend	26	2,46±0,17				26	2,50(2,31-2,81)		

There is no significant difference according to the conference activity variable since $p = 0,907$ and $0,05$ for the 4th LCAT pre-test in Table 14. Since $p =$ less than $0,044$ and $0,05$ for the post-test, there is a significant difference between the post-test achievement score variable according to the conference activity variable.

Table 15. Findings Regarding the 5th LCAT pre-test and post-test Mann Whitney U Test Results According to the Conference Activity Variable

	Participation status	Pre-test				Post-test			
		N	Median(min-max)	U	p	N	Median(min-max)	U	p
Conference Event	Participating	70	2,36(1,64-2,91)	890,5	0,871	70	2,48(1,82-2,91)	878	0,027
	Unable to attend	26	2,45(1,64-2,82)			26	2,45(2,00-3,00)		

Since there is more than $p = 0,871$ and $0,05$ for the 5th LCAT pre-test in Table 15, there is no significant difference according to the conference activity variable. Since $p =$ less than $0,027$ and $0,05$ for the post-test, there is a significant difference between the post-test achievement score variable according to the conference activity variable.

5- Evaluation of Pre-test and Post-test Achievement Points According to Debate Effectiveness

The average scores of the convicts / detainees before and after the application were examined. As a result of the normality test, it was observed that the data of the 1st LCAT post-test, the 4th LCAT pre-test and the 5th LCAT post-test came from the normal distribution. Therefore, whether the scores of achievement differ according to the effectiveness of the debate was analyzed with the t-test, which is a parametric test type and used to test the variables in which the two groups are involved. Since the 1st LCAT pre-test, the 4th LCAT post-test and the 5th LCAT pre-test did not come from the normal distribution, the Mann Whitney U test, which is a non-parametric type of test and used to test the variables of two groups, was used.

Table 16. Findings Related to Pre-test 1st LCAT Mann Whitney U Test Results and Findings Related to Post-test T-Test Results According to Debate Effectiveness Variable

	Participation status	Pre-test				Post-test				
		N	Medyan (min-max)	U	p	N	Avg±Std. Deviation (±)	Sd	t	p
Debate Event	Participating	15	2,36(2,07-2,93)	524,5	0,400	15	2,59±0,29	94	-1,394	0,017
	Unable to attend	81	2,43(1,57-3,00)			81	2,50±0,22			

There is no significant difference according to the debate effectiveness variable in Table 16, since $p = 0,400$ and $0,05$ for the 1st LCAT pre-test. Since $p =$ less than $0,017$ and $0,05$ for the post-test, there is a significant difference between the post-test achievement score variable according to the debate efficiency variable.

Table 17. Findings Related to the Results of Pre-test 4th LCAT t-Test According to the Debate Efficiency Variable and Findings Related to the Post-test Mann Whitney U Results

	Participation status	Pre-test				Post-test				
		N	Avg±Std. Deviation (±)	Sd	t	p	N	Median(min-max)	U	p
Conference Event	Participating	15	2,48±0,21	94	-0,22	0,826	15	2,51(2,31-2,69)	579	0,032
	Unable to attend	81	2,47±0,21				81	2,50(1,63-3,06)		

There is no significant difference according to the debating effectiveness variable since Table 17 has more than $p = 0.826$ and 0.05 for 4th LCAT pre-test. Since $p =$ less than 0.032 and 0.05 for the post-test, there is a significant difference between the post-test achievement score variable according to the debate efficiency variable.

Table 18. Findings Related to Pre-test 5th LCAT Mann Whitney U Results According to Debate Efficiency Variable and Findings Related to Post-test T-Test Results

		Pre-test				Post-test				
Participation status		N	Median (min-max)	U	p	N	Avg±Std. Deviation (±)	Sd	t	p
Debate Event	Participating	15	2,45(1,91-2,82)	530,5	0,432	15	2,46±0,17	94	-	0,048
	Unable to attend	81	2,36(1,64-2,91)			81	2,41±0,24			

Since $p = 0,432$ and $0,05$ for the 5th LCAT pre-test in Table 18, there is no significant difference according to the debate effectiveness variable. Since $p =$ less than $0,048$ and $0,05$ for the post-test, there is a significant difference between the post-test achievement score variable according to the debate efficiency variable.

6- Evaluation of Pre-test and Post-test Achievement Points by Forum Activity

The average scores of the convicts / detainees before and after the application were examined. As a result of the normality test, it was observed that the data of the 1st LCAT post-test, the 4th LCAT pre-test and the 5th LCAT post-test came from the normal distribution. For this reason, whether the scores of achievement differ according to the effectiveness of the forum was analyzed with the t test, which is a parametric test type and used to test the variables in which the two groups are involved. Since the 1st LCAT pre-test, the 4th LCAT post-test and the 5th LCAT pre-test did not come from the normal distribution, the Mann Whitney U test, which is a non-parametric type of test and used to test the variables of two groups, was used.

Table 19. Findings Regarding Results of Pre-test 1st LCAT Mann Whitney U Test According to Forum Activity Variable and Findings Regarding Post-test T-Test Results

		Pre-test				Post-test				
Participation status		N	Median (min-max)	U	p	N	Avg±Std. Deviation (±)	Sd	t	p
Forum Activity	Participating	5	2,71(2,43-2,93)	64	0,107	5	2,51±0,30	94	0,398	0,016
	Unable to attend	91	2,43(1,57-3,00)			91	2,47±0,23			

Since there is more than $p = 0.107$ and 0.05 for 1st LCAT pre-test in Table 19, there is no significant difference according to forum activity variable. Since $p =$ less than $0,016$ and $0,05$ for the post-test, there is a significant difference between the post-test achievement score variable according to the forum activity variable.

Table 20. Findings Related to Pre-test 4th LCAT t-Test Results According to Forum Activity Variable and Findings Related to Post-test Mann Whitney U Results

	Participation status	Pre-test					Post-test			
		N	Avg±Std. Deviation	Sd	t	p	N	Median(min-max)	U	p
Forum Activity	Participating	5	2,66±0,34	94	-1,354	0,245	5	2,52(2,38-2,81)	221	0,013
	Unable to attend	91	2,46±0,20				91	2,50(1,63-3,06)		

There is no significant difference according to the forum activity variable since $p = 0,245$ and $0,05$ for 4th LCAT pre-test in Table 20. Since $p =$ less than $0,013$ and $0,05$ for the post-test, there is a significant difference between the post-test achievement score variable according to the forum activity variable.

Table 21. Findings Related to Pre-test 5th LCAT Mann Whitney U Results by Forum Activity Variable and Findings Related to Post-test T-Test Results

	Participation status	Pre-test				Post-test				
		N	Median (min-max)	U	p	N	Avg±Std. Deviation	Sd	t	p
Forum Activity	Participating	5	2,55(2,27-2,82)	166,5	0,309	5	2,48±0,08	94	0,406	0,045
	Unable to attend	91	2,36(1,642,91)			91	2,45±0,24			

Since there is more than $p = 0.309$ and 0.05 for the 5th LCAT pre-test in Table 21, there is no significant difference according to the forum activity variable. Since $p =$ less than $0,045$ and $0,05$ for the post-test, there is a significant difference between the post-test achievement score variable according to the forum activity variable.

7-Evaluation of Pre-test and Post-test Achievement Points by Panel Activity

The average scores of the convicts / detainees before and after the application were examined. As a result of the normality test conducted, it was observed that the data of 1st LCAT, 4th LCAT and 5th LCAT pre-test and post-test did not come from the normal distribution. For this reason, whether the scores of achievement differ according to the panel effectiveness was analyzed with the Mann Whitney U test, which is a non-parametric test type and used to test the variables with the two groups.

Table 22. Findings Regarding 1st LCAT pre-test and post-test Mann Whitney U Results According to Panel Activity Variable

	Participation status	Pre-test				Post-test			
		N	Median(min-max)	U	p	N	Median(min-max)	U	p
Panel Activity	Participating	8	2,43(2,21-2,93)	351,5	0,995	8	2,59(1,93-2,71)	326,5	0,033
	Unable to attend	88	2,43(1,57-3,00)			88	2,57(2,00-3,14)		

Since $p = 0,995$ and $0,05$ for Table 1 in the 1st LCAT pre-test, there is no significant difference according to the panel activity variable. Since $p =$ less than $0,033$ and $0,05$ for the post-test, there is a significant difference between the post-test achievement score variable according to the panel activity variable.

Table 23. Findings Regarding 4th LCAT pre-test and post-test Mann Whitney U Results According to Panel Activity Variable

	Participation status	Pre-test			Post-test				
		N	Median(min-max)	U	p	N	Median(min-max)	U	p
Panel Activity	Participating	8	2,44(2,06-2,56)	326	0,729	8	2,52(1,63-2,69)	346,5	0,041
	Unable to attend	88	2,50(2,00-3,06)			88	2,50(2,13-3,06)		

Since there is more than $p = 0,729$ and $0,05$ for the 4th LCAT pre-test in Table 23, there is no significant difference according to the panel activity variable. Since $p =$ less than $0,041$ and $0,05$ for the post-test, there is a significant difference between the post-test achievement score variable according to the panel activity variable.

Table 24. Findings Related to 5th LCAT pre-test and post-test Mann Whitney U Results According to Panel Activity Variable

	Participation status	Pre-test			Post-test				
		N	Median(min-max)	U	p	N	Median(min-max)	U	p
Panel Activity	Participating	8	2,59(2,18-2,82)	227,5	0,095	8	2,46(2,00-2,55)	300	0,048
	Unable to attend	88	2,36(1,64-2,91)			88	2,45(1,82-3,00)		

Since $p = 0,095$ and $0,05$ for the 5th LCAT pre-test in Table 24, there is no significant difference according to the panel activity variable. Since $p =$ less than $0,048$ and $0,05$ for the post-test, there is a significant difference between the post-test achievement score variable according to the panel activity variable.

In addition, after the analysis, the variables of gender, age, education level, income level, participation in courses, participation in cinema activity, number of books read, and prison type are among the pre-test and post-test scores before the application of listening activities based on discussion types. There is no significant difference between.

Considering the demographic findings of the research, the significance of the achievement tests, the pre-test and post-test achievement scores before the listening activities based on the types of discussion based on the demographic characteristics of the participants, the following summary table was created based on these findings:

Table 25. Cumulative summary of the post-test data of the listening comprehension achievement tests(LCAT) according to the demographic elements of the study

Demographic features	1st LCAT	4th LCAT	5th LCAT
Participants	There Is Significant Difference (SF)	No Significant Difference (NSD)	There Is Significant Difference(SF)
Gender	(NSD)	(NSD)	(NSD)
Age	(NSD)	(NSD)	(NSD)
Education Status	(NSD)	(NSD)	(NSD)
Revenue	(NSD)	(NSD)	(NSD)
Conference	(SF)	(SF)	(SF)
Discussion	(SF)	(SF)	(SF)
Forum	(SF)	(SF)	(SF)
Panel	(SF)	(SF)	(SF)
Course	(NSD)	(NSD)	(NSD)
Cinema	(NSD)	(NSD)	(NSD)
Number of Books Read	(NSD)	(NSD)	(NSD)
Prison Type	(NSD)	(NSD)	(NSD)

Discussion and Conclusion

This research was shaped on the question “What is the effect of the use of discussion types on the listening skills of convicts / prisoners” and at the end of the research, the positive effect of the use of discussion types on education-improvement activities was determined.

Doğan (2010), in his study entitled “Making Use of Activities in Improving Listening Skill”, discussed the education of listening skill and at the end of the research, it was shown that gamification of activities was important for more effective participation of students. In this study, it was revealed that the use of discussion types had positive effects on the listening skill of convicts / prisoners.

Epçaçan (2013) concluded that listening skill is a developable skill in the study of listening skill education and listening techniques, and that listening skill is a developable skill and especially in the measurement dimension of listening education and the need for more studies in this field. In addition, the application of strategies and techniques to improve listening skill has been put forward as an element affecting listening skill. At the end of this research, the positive effect of the use of discussion types on listening skill was found in training-improvement activities. Considering the use of discussion types within a technique to improve listening skill constitutes a similar aspect of this research in terms of the results presented.

Aytan (2011) examined the effects of active learning techniques on listening skill in her study "Effects of Active Learning Techniques on Listening Skill". It has been determined that the education given with active learning techniques improves students' listening skills. It can be thought that the above mentioned study shows similarity with this research in which the positive effects of the use of discussion types on listening skill were determined.

If a general evaluation is made in the light of this information, when the literature is examined, it is remarkable that some academic studies have been carried out for criminal execution institutions. Crabbe claims that offender learning should be about values rather than about costs (Crabbe, 2016). He adds that prison education needs to be inspiring and motivational and it necessitates links to employment and ‘real life’ on release. Cormac assesses that while prison education can work with, it needs to distinguish itself from, state-sponsored rehabilitation programmes and stand on the integrity of its profession, based on principles of pedagogy rather than be lured into the evaluative and correctional milieu of modern penalty (Behan, 2014). It will be possible to gather these studies under the main headings such as historical development of institutions, periodical approaches, the concept of imprisonment, the legal framework of punishment, regional prisons, security principles of the institutions, personnel attitudes and problems (Focault, 1977). Research in the literature does not reveal an approach to language skills of convicts / detainees (both children and adults). It seems that there has been no study on the listening skills of convicts / detainees so far.

In this study, the effects of the use of discussion types on the listening skills of convicts / prisoners in the training and improvement activities implemented in criminal execution institutions were examined with some sub-problems. Five different listening comprehension tests were applied to convicts / detainees. By looking at the findings of these tests and other findings related to the research, it is possible to reach the following results:

It was determined that there was a significant difference between the scores of the convicts / detainees participating in the study before and after the 1st LCAT. When the rank totals of the difference scores are taken into consideration, it is seen that this observed difference is in favor of the positive ranks and post-test points. According to this finding, it can be said that the education provided was efficient. When 1st LCAT findings are considered as a whole, it can be said that the significance before and after the experiment was mainly caused by the group of participants in Bursa E Type Closed Penitentiary Institution.

It was found that there was no significant difference between the scores of the convicts / detainees participating in the research before and after the experiment they received the 2nd LCAT and the 3rd LCAT. According to this finding, it can be said that the training did not change the achievement of convicts / detainees.

It was determined that there was a significant difference between the scores of the convicts / detainees participating in the study before and after the 4th LCAT. When the rank totals of the difference scores are taken into consideration, it is seen that this observed difference is in favor of the positive ranks and post-test points. According to this finding, it can be said that the education provided was efficient. Considering the 4th LCAT findings as a whole, it is possible to talk about a

achievementful educational process in general, not on the basis of the institution of execution, since there is a statistically significant borderline significance throughout the test.

It was determined that there was a significant difference between the scores of convicts / detainees participating in the study before and after the 5th LCAT. When the rank totals of the difference scores are taken into consideration, it is seen that this observed difference is in favor of the positive ranks and post-test points. According to this finding, it can be said that the education provided was efficient. 5th LCAT, when findings are considered as a whole, it can be said that the significance level before and after the experiment was mainly caused by the participant group in Yenişehir Women's Closed Criminal Execution Institution, Bursa E-Type Closed Criminal Execution Institution and Bursa H-Type Closed Criminal Execution Institution.

When examining the demographic data, the results of which were determined were based on the three scales named as the 1st LCAT, the 4th LCAT and the 5th LCAT, and the sub-problems were examined considering these scales. The 2nd LCAT and the 3th LCAT were not evaluated because they did not give meaningful results.

When all the scales are considered as a whole according to the participants characteristics of the convicts / detainees participating in the research, it can be mentioned that the participants has an impact on the education process performed throughout the tests. In addition, it can be said that the variables of gender, age, education level, income level, participation in the course activity, participation in the cinema activity, number of books read, type of criminal execution institution found in the study have no effect on the education process.

When the convicts / detainees participating in the research are evaluated according to the variables of conferences, debates, forum and panel activities, it is seen that the theoretical and practical training process on the types of conferences, debates, forums and panels has been influenced by the statistical significance between the results of the pre-tests and the results of the post-tests.

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Teaching Secondary School Science through Creative Drama Method: A case study approach¹

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Abstract

The purpose of this study is to evaluate the practicality of creative drama method for students in science teaching. For this purpose the effects of creative drama method on the students' self-efficacy, scientific process skills and attitudes towards science have been investigated. An instrumental case study research method was used to teach the unit "States of Matter and Heat" unit in the 8th grade science curriculum through creative drama. The participants consisted of 20 eight grade students in a secondary school in Kilis. The group guide program, which consists of seven session plans, was prepared by the researchers in line with the views of three science education experts. The practice was carried out by the first author for a total of seven weeks in seven sessions, 80 minutes each. Data have been collected through "Science and Technology Course Self-efficacy Scale (STSS)", "Scientific Process Skills (SPS) test", "Science Course Attitude Scale (Science-AS)", semi-structured interviews and observation. Obtained quantitative data were analyzed by Wilcoxon Signed Sequences test and the qualitative data were analyzed by content analysis. According to the results, the negative aspects of creative drama learning environment affected the practicability of creative drama method and the practicability of creative drama method increased significantly by eliminating these negative aspects. It was also found creative drama method increased their self-efficacy about learning science and attitudes towards science course, but it had no statistically significant effects on students' scientific process skills. In accordance with these results, related suggestions were made for further studies.

Keywords: Creative drama method, practicality, scientific process skills, self-efficacy, science

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Introduction

With increasing internationalization, increasing information intensive work and increasing use of information technology, the education system has started to change. Schools have endeavored to produce not only individuals with knowledge but also individuals with high interpersonal relations and communication skills, able to work in various contexts and knowledge literacy skills (Allan, 1996; Burgess, 2000; Lim, 2015; Sakamoto, 1996). Schools are now moving towards a more learner-centered approach to learning for in response to this challenge (Gravoso et al., 2008). Teachers cannot teach students directly. Teachers must provide an environment in which students can learn and learners have full responsibility for their own (Rogers, 1965, p.389). Students did not come to classroom as blank slates waiting to be filled with scientific knowledge. They have already full of ideas or conceptions about the world that are often inconsistent with the scientific concepts teaching in schools (Smith et al., 1993). At this point constructivism challenge these ideas or conceptions and in so doing, bring about their re-construction in order to enable the students to see the world in the same scientific way that the teacher sees it (Ogborn et al., 1996). In a constructivist classroom, the teacher searches for students' understandings of concepts, and then structures opportunities for students to refine or revise these understandings by posing contradictions, presenting new information, asking questions, encouraging research, and/or engaging students in inquiries designed to challenge current concepts (Brooks & Brooks, 1993, p.9).

Constructivist teaching methods such as using drama have been promoted as productive ways of learning, especially in science (Braund, 2015). Drama plays a prominent part in the teaching of some of the humanities (English, history etc.) and has been recommended as an affective teaching strategy for science teaching (Duveen & Soloman, 1994). If students are allowed to experience the actual personal involvement that the use of drama provides they are far more likely to become personally interested in the material being taught (Abrahams & Braund, 2012). In science subjects drama has been said to help students learn concepts, appreciate the nature of science and learn more about science's interactions with society (Ødegaard, 2001). There are different techniques of drama that are used in teaching. Creative drama is one of the drama-assisted learning activities in which a leader and his/ her followers, and situations (Doğru et al., 2010). Creative drama is individuals' making sense or performing an event, an experience, an abstract or concrete concept making use of theater or drama techniques such as role playing, improvisation in a group work by reorganizing an old, cognitive patterns in playful processes where experiences, observations, feelings and experiences are reviewed (San, 1990). With this method, students not only discover information but also get to know themselves with improvisations and as a result they discover themselves (Aksoy Tokgöz, 2004). In addition, creative drama method supports students' imagination and internal motivation (Toivanen et al., 2013). What distinguishes the creative drama method from other student-centered methods is

that it recreates the learning environment with the playful forms (Bertiz, 2005). The games activate the students and the students who become active learn more quickly (Aytaş, 2013). In addition, it is easier to learn abstract and difficult concepts for students through teaching with creative drama method (Danckwardt-Lillieström et al., 2017; Hendrix et al., 2012).

The creative drama consists of three phases: preparation/warm-up, animation and evaluation/discussion (Adıgüzel, 2015, p.101). Preparation/warm-up phase includes the studies with certain rules and mostly defined by the leader. These studies include meeting, interaction, trust and adaptation, using five senses, observing, physical and tactile studies. Fun children's games and derived games can be used effectively at this phase. The purpose of this phase is to prepare the students for the next phase and to increase the motivation of the students towards the course (Adıgüzel, 2006). The animation phase covers all the situations in which the subject matter is shaped and exhibited in the process and exhibited to other drama participants (Adıgüzel, 2015). It is a phase where improvisation, role-playing and other techniques are used as a starting point within the framework of the subject to be performed (Adıgüzel, 2006). The choice of these techniques is determined by the teacher, taking into account the characteristics of the group and the subject. Performances can be done with the group or individually. Creativity and authenticity are exhibited at this phase (Çopur, 2014). Although, evaluation/discussion is the phase in which creative drama method is evaluated, both cognitive and affective evaluations are made in other phases of creative drama (Akfırat, 2004). This phase can be done in the form of written and oral discussion, test, survey, observation and interview forms and can be done with various scales (Üstündağ, 1998).

Creative drama has rapidly gained importance in education and training in the world and in our country. It can be used as an effective method in the teaching of almost every course at every teaching level (Namdar, 2017, p.264). As reported in the related literature many concepts in science have been taught with creative drama, for example; electricity (Aubusson et al., 1997; Sağırılı & Gürdal, 2002), force and motion (Sedef, 2012), mechanical (Çopur, 2014), astronomy (Ceylan et al, 2015; Francis & Byrne, 1999), environment (Nalçacı, 2012; Teker, 2009; Yalın, 2003; Yılmaz, 2006), genetic (Saka et al., 2016), mitotic division (Wyn & Steginik, 2000), light and sound (Can, 2013), mixtures and solutions (Arielli, 2007), energy (Hendrix et al., 2012), chemical bonds (Danckwardt-Lillieström et al., 2017), structure of matter (Demirağ, 2014; Tuncel, 2009), heat and temperature (Kahyaoğlu et al., 2010; Yeşiltaş et al., 2017). The literature, especially related science education, shows that there are many studies investigated the effects of creative drama on attitude (Çokadar & Yılmaz, 2009; Çopur, 2014; Demirağ, 2014; Hendrix et al., 2012; Doğru et al., 2010; Saka et al., 2016; Şahbaz, 2004; Timothy & Apata, 2014; Yağmur, 2010), scientific process skills (Can, 2013; Sedef, 2012; Taşkın-Can, 2013), self-efficacy (Hamurcu, 2008). From these literatures, it can be concluded

that creative drama generally have positive effects on students' self-efficacy, scientific process skills and attitudes towards science excluding some studies (Demirağ, 2014; Hendrix et al., 2012).

The Importance of the Study

The positive effect of creative drama method on students has been known for a long time and it is seen that even in Turkey since 1998, creative drama has been taught as elective or compulsory courses in education faculties (Çopur, 2014; Üstündağ, 1998). But, in literature there has been no study investigating the practicability of creative drama method for students in science teaching.

The Aim of the Study

In this study it was purposed to evaluate the practicality of creative drama method for students in science teaching. Also for this purpose the effects of creative drama method on the students' self-efficacy, scientific process skills and attitudes towards science have been investigated.

Methodology

In this study, instrumental case study was utilized as the research method (McMillan & Schumacher, 2010). The case study is an empirical research method that is used in cases where there is more than one evidence or data source, and a current phenomenon is not clear in the precise lines of the boundaries between the case and the content that works within its life frame (content) (Yin, 1984, p.23; cited in: Yıldırım & Şimşek, 2013, p.313). There are different classifications of the case study. Stake (2003) classified the case study as internal, instrumental and multiple case study. According to the instrumental case study used in the this study, the primary purpose is to reveal the effects of the event rather than to understand the event itself, and to examine a special event, activity or situation, but in order to determine the effect of the event in the most accurate way, the event must be examined in depth (Stake, 2003, p.137).

Participants

A total of 20 eight-grade students in a secondary school at Kilis in 2016-2017 academic-years participated in this study. The participants were selected through voluntary sampling, which is a non-random sampling method. This sampling method is on voluntary basis. Person or persons participate in the research on a voluntary basis (Baştürk & Baştepe, 2013, p.146-147).

Data Collection Tools

Science and Technology Course Self-Efficacy Scale (STSS)

In order to examine the effect of creative drama method on self-efficacy of students towards science learning, STSS developed by Tatar et al. (2009) was used as pre-test before the practice and post-test after the practice. STSS consists of 27, 5-point Likert type items. The Cronbach Alpha reliability coefficient of the scale was calculated as 0.93. The STSS has three sub-dimensions; these

are “trust in science and technology”, “dealing with the challenges of science and technology “and” trust in science and technology performance”. The Cronbach Alpha reliability coefficients of these dimensions are 0.93, 0.75 and 0.80 respectively. In this study, the Cronbach alpha reliability coefficient of the scale for the pre-test was 0.96 and the Cronbach Alpha reliability coefficient for the post-test was calculated as 0.91.

Scientific Process Skills (SPS) test

In order to investigate the effect of creative drama method on students' scientific process skills, SPS test was used as pre-test and post-test before and after the practice. The SPS test developed by Okey, Wise and Burns (1982) and adapted to Turkish by Geban, Aşkar and Özkan (1989) consists of 36 items (cited in. Geban, 1990). The reliability coefficient was calculated as Cronbach Alpha 0.81 by the researchers who adapted the SPS test to Turkish. Karar and Yenice (2012), who applied the scale on the 8th grade students, removed 10 items with item discrimination index value less than 0.20 from the scale and calculated the reliability coefficient of the new test as 0.78.

Because, this study studies the effect of creative drama method on scientific process skills of 8th grade students, the use of 26-item version of SPS, obtained by Karar and Yenice (2012) were considered to be more appropriate. In this study, the Cronbach's alpha reliability coefficient of the SPS test was calculated as 0.75 and the Cronbach Alpha reliability coefficient was calculated as 0.74. The test has five dimensions: Defining and controlling variables, hypothesizing, operational (functional) defining, designing the research for the solution of the problem, drawing and interpreting graphs. Each question in the test is scored as 1 for correct answers, and each wrong answer is scored as 0. As a result, the highest score from the test is 26 and the lowest score is 0. Scientific process skills test score ranges: 0–8.02 is low level, 8.03–17.62 is medium level and 17.63–26 is high level (Karar & Yenice, 2012).

Science Course Attitude Scale (Science-AS)

In order to examine the effect of creative drama method on students' attitudes towards science course, Science-AS was used as pre-test and post-test before and after the practice. The scale was developed by Geban et al. (1994) and consisted of 11 positive and 4 negative, the total of 15 5-point Likert type items. Cronbach Alpha reliability coefficient of the scale was reported as 0.83. In this study, Cronbach Alpha reliability coefficient was calculated as 0.78 for the pre-test and 0.82 for the post-test.

Semi-Structured Interview

Data were collected through semi-structured interviews to determine the students' opinions about the creative drama method. A semi-structured interview form was prepared by the researchers for this purpose. The researchers developed a semi-structured interview form, which consisted of 8

items at first. Then, according to the feedback of the two experts, the form was arranged and it took the final form consisting of five questions as well as the probes of each question. After the practice, 13 voluntary students were interviewed by using semi-structured interview form. Each interview was recorded with a voice recorder with the permission of the students. Then, these voice recordings were carefully transformed into written text, and the researchers identified the code and the categories and examined them through content analysis.

Semi-Structured Observation

A semi-structured form was developed by the researchers according to the opinions of two faculty members who are specialized in science education. The practice was recorded with a video camera from the beginning to the end, and the records obtained were examined through content analysis by using semi-structured observation form.

Practice Process

The group guidance program, which consists of seven session plans, was constructed by taking three phases of creative drama. The draft guidance program was presented to the opinions of three experts from the field of science education. The necessary arrangements were made in line with the feedback they gave and final version of the guidance program was formed by the researchers. One of the session plans is included in Appendix 1. As a school of the practice, a secondary school has been determined through easily accessible sampling and necessary legal permissions have been obtained. Before the practice, all eight grade students in this school were informed about the study and creative drama. Only the volunteers were asked to participate in the practice. A total of 20 students from four different classes volunteered to participate in the practice. The practice was carried out by the first author as seven sessions (80 minutes each). The program content consists of three parts: a) core heat (two sessions), b) heat exchange and temperature (three sessions) and c) states of matter and heat exchange (two sessions). Role playing and improvisation techniques were used while implementing creative drama method and during the practice, classical music was played to the students in the classroom.

Data Analysis

In this study, Wilcoxon Signed Ranks Test was used to find out whether the differences between pre-test and post-test scores were statistically significant (Gravetter & Wallnau, 1996). Wilcoxon Signed Ranks Test is used to compare the scores of two dependent groups as an alternative to t test, if the data do not have normal distribution (Akgül & Çevik, 2003).

Additionally, the practice process was camera recorded and then records were examined in detail through semi-structured observation form. Also, immediately after the end of the practice, data were collected through semi-structured interviews with 13 students from the study group. Data

obtained through both interviews and observations were subjected to content analysis. In the content analysis method, a deductive path is followed (Özdemir, 2014), primarily the data are categorized and the frequencies of these categories are determined (Bryman, 2001). In the content analysis method, the researcher interprets and evaluates the text by examining the number, meaning of the concepts in the text and the relation of concepts with each other and the emphasis of concepts and reaches a judgment about the text in hand (Şencan, 2005).

Results

Results on the Practicability of Creative Drama Method for Students

In order to evaluate the practicability of the 8th grade science lesson “States of Matter and Heat” unit with creative drama method, data obtained by semi-structured interview and semi structured observation were analyzed. Content analysis method was used for data analysis. The answers were sought to the question “what are the positive and negative opinions of students about the learning environment with creative drama method and studying of the “States of Matter and Heat” unit through creative drama method?” Therefore, the data obtained from the semi-structured interview to determine the thoughts of students about creative drama method were examined in terms of creative drama method and creative drama learning environment themes and the findings are presented in Table 1.

Table 1. Content analysis results for semi-structured interview data

Theme	Category	Code	Frequency (f)	Percent (%)
Creative Drama Method	Positive	Enjoying learning with games and drama	7	53.85
		The fun of the lessons	5	38.46
		Lessons in different ways	2	15.38
		Learning empathy and imagining	2	15.38
		The ability to story subjects	2	15.38
		Learning group work	2	15.38
		Lessons with music	2	15.38
		Increase friendships	1	7.69
		Psychological relaxation	1	7.69
		Creative Drama Learning Environment	Negative	Obligation for drama
Not enjoying classical music	1			7.69
Creative Drama Learning Environment	Positive	Enjoying having no desks	3	23.08
		Enjoying camera recording	1	7.69
	Negative	Camera recording	3	23.08
		Noise	2	15.38
		Sitting on the floor	2	15.38

As presented in Table 1, interview data were divided into two themes as creative drama method and creative drama learning environment and each theme was divided into two categories as positive and negative. According to the findings on the theme of creative drama method, all of the students interviewed (f=13) had a positive opinion about creative drama method and few students (f=2) mentioned about the negative sides of the creative drama method. In terms of the positive aspects of the creative drama method, students enjoy learning with games and drama (f=7), and then the lessons are studied in a fun way (f=5), while the least is to increase friendship (f=1) and psychological relaxation (f=1). According to students' opinions, obligation for drama (f=1) and classical music (f=1) and camera recording (f=3) are negative aspects of creative drama method. Some of the positive opinions of the students about creative drama method are provided below. Code names are given instead of student names.

“...I like it. I enjoyed learning more drama, listening to music was more fun.” (S2)

“...there was a joint study, group work. We learned to be a team. It was good, we developed our friendships.” (S1)

One of the negative opinions of the students about the creative drama method reported in the semi-structured interview is provided below.

“... [I did not like that] sometimes we had to role-play.” (S7)

As presented in Table 4, students have more negative opinions (f=7), while fewer students have a positive opinion (f=4) about the theme of creative drama learning environment. While students consider the learning environment with the camera (f=3), sitting on the floor (f=2) and noisy (f=2) as negative aspects, having no desks (f=3), recording with the camera (f=1) were considered as the positive aspects of the creative drama learning environment.

One of the positive opinions of the students about the creative drama learning environment is given below.

“We did not sit at desks. We told stories in a circle. I loved that very much.” (S3)

One of the negative opinions of the students about the creative drama learning environment is given below. “...What I did not like was being video recorded and sitting on the floor.” (S4)

Table 2 presents the content analysis results of the semi-structured observation data. f refers to the number of observed cases about the code, % refers to the percentage of the code.

As presented in Table 2, observation data were divided into two themes as creative drama method and creative drama learning environment and each theme was divided into two categories as positive and negative. According to the findings on the theme of creative drama method, 84.72% of the observed cases were positive, while 15.28% were negative. In terms of the positive aspects of the

creative drama method, students had fun (f=110), were motivated to answer questions (f=76), followed leader's instructions (f=58), loved drama (f=16), made jokes (f=15) and made constructivist criticism (f=35), while the negative observed cases were boredom (f=35), not enjoying classical music (f=29) and being shy-timid-anxious (f=11).

Table 2. Content analysis results for semi-structured observation data

Theme	Category	Code	Frequency (f)	Percent (%)		
Creative Drama Method	Positive	Having fun	110	17.89		
		Motivation to answer questions	76	12.36		
		Following the leader's instructions	58	9.43		
		Willingness	44	7.15		
		Participating in group work	43	6.99		
		Cooperation	39	6.34		
		Curiosity-asking questions	37	6.02		
		Active listening	25	4.07		
		Adaptation	24	3.90		
		Expressing oneself	22	3.58		
		Making drama	16	2.60		
		Making jokes	15	2.44		
		Constructive criticism	12	1.95		
		Creative Drama Learning Environment	Negative	Being bored	35	5.69
				Not enjoying classical music	29	4.72
				Being shy-timid-anxious	11	1.79
Not enjoying group work	10			1.63		
Obligation for drama	9			1.46		
Creative Drama Learning Environment	Positive	Student-teacher communication	58	15.38		
		Student-students communication	48	12.73		
		Intervening friends	103	27.32		
		Extra-curricular communication	78	20.69		
		Noise	70	18.57		
		Not wanting to sit on the floor	20	5.31		

As presented in Table 2, among the positive cases observed in the creative drama learning category are; teacher-students communication (f=58) and student-student communication (f=48), while the negative are intervening friends (f=103), extra-curricular communication (f=78), noise (f=70) and not wanting to sit on the floor (f=20).

Findings on the Effect of Creative Drama Method on Self-Efficacy in Science Learning

In order to study the effects of creative drama method on students' self-efficacy towards science learning, Science and Technology Lesson Self-Efficacy Scale (STSS) was applied as pre-test before and post-test after the practice. Since a student did not participate in the post-test and two of the

students had left many items in the post-test blank, the data obtained from 17 students participating in both tests were analyzed (Table 3).

Table 3. Average and standard deviation values of science and technology lesson self-efficacy scale (STSS) pre-test and post-test results

Scale	N	\bar{x}	Sd
STSS pre-test	17	4.35	0.73
STSS post-test	17	4.60	0.34

As presented in Table 3, the average pre-test for STSS is 4.35 and the post-test average is 4.60. The data were tested with the Wilcoxon Signed Ranks Test in order to find out whether the difference between average values was statistically significant and to what extent the creative drama method influenced students' self-efficacy towards science learning (Table 4).

Table 4. Results of wilcoxon signed rank test analysis of Science and Technology Lesson Self-Efficacy Scale (STSS) pre-test and post-test scores

STSS Post-Test- STSS Pre-Test	N	Mean rank	Rank sum	Z	p
Negative rank	3	3.33	10	-2.046*	.041
Positive rank	8	7	56		
Equal	6	-	-		
Total	17				

* Based on negative ranks

Table 4 shows that there is a significant difference between STSS pre-test and STSS posttest mean ranks ($z = -2.046$; $p < .05$). According to the mean ranks and rank sums of the difference points, the observed difference is in favor of the positive order, i.e. the post-test score. It can be concluded that creative drama method has a positive effect on students' self-efficacy towards science learning.

Findings on the Effect of Creative Drama Method on Scientific Process Skills

In order to study the effect of creative drama method on students' scientific processes, Scientific Process Skills (SPS) test was applied as pre-test before and post-test after the practice. The data obtained from a total of 19 students were analyzed since one student did not take the post-test (Table 5).

Table 5. Average and standard deviation values of Scientific Process Skills [SPS] test pre-test-post-test results

Scale	N	\bar{x}	sd	Scientific Process Skill Level
SPS Test Pre-test	19	12.47	4.59	Medium
SPS Test Post-test	19	13.32	4.41	Medium

As presented in Table 5, SPS test pre-test average is 12.47 and post-test average is 13.32. The scientific process skill levels of the study group were medium both before and after the practice. According to this result, the SPS test post-test average increased slightly. However, in order to find out whether the difference between averages was statistically significant and to what extent the creative

drama method influenced students' scientific process skills, the data were tested with the Wilcoxon Signed Rank Test (Table 6).

Table 6. Results of the Wilcoxon Signed Ranks Test of Scientific Process Skills (SPS) test pre-test and post-test scores

SPS Post-Test- SPS Pre-Test	N	Mean rank	Rank sum	Z	p
Negative rank	6	10.17	61	-1.072*	.284
Positive rank	12	9.17	110		
Equal	1	-	-		
Total	19				

* Based on negative ranks

As presented in Table 6, there is no statistically significant difference between SPS test pretest and SPS test posttest mean ranks ($z = -1.072$; $p > .05$). This finding suggests that the creative drama method has no positive effect on the development of students' scientific process skills.

Findings on the Effect of Creative Drama Method on Attitudes towards Science Course

In order to find out the effects of creative drama method on students' attitudes towards science, Science Course Attitude Scale (Science-AS) was applied as pre-test and post-test before and after the practice. Since one student did not participate in the post-test and one student left many items blank in the post-test, the data obtained from a total of 18 students who participated in both tests were analyzed (Table 7).

Table 7. Average and standard deviation values of Science Course Attitude Scale (Science-As) pre-test and post-test results

Scale	N	\bar{x}	sd
Science-AS pre-test	18	4.36	0.44
Science-AS post-test	18	4.56	0.38

As presented in Table 7, pre-test average of the Science-AS scale is 4.36 and the post-test average is 4.56. According to this result, the post-test average value of Science-AS increased slightly. However, in order to find out whether the difference between the averages was statistically significant and to define the effect of creative drama method on students' attitudes towards science, data were analyzed with Wilcoxon Signed Rank test (Table 8).

Table 8. Results of the Wilcoxon Signed Ranks Test of Science Course Attitude Scale (Science-As) pre-test and post-test scores

Science-AS post-test - Science-AS pre-test	N	Mean rank	Rank sum	z	p
Negative rank	6	5.17	31	-2.173*	.030
Positive rank	11	11.09	122		
Equal	1	-	-		
Total	18				

* Based on negative ranks

As presented in Table 8, there is a significant difference between the Science-AS pre-test and Science-AS post-test averages ($z=2.173$; $p < .05$). According to the mean ranks and rank sums of the

difference points, the observed difference is in favor of the positive ranks, in other words, the post-test scores. This finding suggests that the creative drama method has a positive effect on students' attitudes towards science, and that the creative drama method increases the students' positive attitude towards science.

Discussion, Conclusion and Recommendations

In this study it was investigated the practicability of creative drama method in science teaching for students and was examined the effects of creative drama method on students' self-efficacy, scientific process skills and attitudes towards science. This study is particularly important in terms of testing the practicability of creative drama method for students. Data collected in order to test the practicability of the creative drama method for the students by semi-structured interview and semi-structured observation were studied and it was found that these were in agreement. According to the results of both analyses, students exhibit more positive experiences related to creative drama method, whereas they exhibit more negative experiences related to creative drama learning environment.

According to the data collected with interview on the creative drama method, the students reported that they liked to be taught with the creative drama method and they found it fun and different. In addition, the students stated that the creative drama method helped them to develop their skills of empathy and imagination, to help them narrate the subjects and learn the group work. Similar findings were obtained with the analysis observation data. According to the observation data, the students had fun during the lessons and were willing to participate in the class and group studies. We can claim that these findings resulted from the fact that students played games that attracted their interest during the preparation/warm-up phase of the drama method, real-life stories were told, additionally, students were provided with the opportunities to this their learning on the subject with improvisations, and group-work and collaboration were used.

According to interview data, some of the students reported that they liked the classical music they listened during the practice while some stated that they did not like. Similar results were obtained with the observation data. According to observation data, some of the students did not like classical music and they got bored of it. That students got bored may have resulted from the fact that only classical music was played for students and only improvisation and role-play techniques were used during the practice. For this reason, it is believed that using different genres of music addressing all students during the practice of drama method, and the use of different teaching techniques of drama method (pantomime, dramatization, etc.) can help with the solving of that kind of problems. Additionally, according to observation data, some of students did not want to participate actively in the lessons since they felt anxious and shy. This problem may have resulted from the fact that the work group was formed with volunteering students from four different classes, and they did not know each other before the practice.

Less positive cases were observed about the creative drama-learning environment. Among the obtained positive results are, some students liked having no desks in the creative drama learning environment, and also creative drama learning environment had positive effects on the student-student and student-teacher interaction. More negative cases were observed about the creative drama learning environment, some of which students did not like the noise and having to sit on the floor. According to observation data, it was observed that students intervened with each other, had extra-curricular communication during the classes, there was noise in the class and some students did not want to sit on the floor. Creative drama is one of the contemporary teaching methods based on the constructivist learning theory. Teachers' having difficulty in classroom management and noise in the classroom is among the problems encountered in the constructivist learning environments (Yıldırım & Dönmez, 2008). For this reason, this kind of problems is completely natural. It was also observed that the noise during the practice was not at a level disrupting the teaching of the class. Another problem experienced about the creative drama learning environment was that students did not want to sit on the floor. This must have resulted from the fact that the floor was not covered with any kind of carpet-like material.

The this study investigated the effects of creative drama method on students' self-efficacy towards science learning and found that creative drama method increased students' self-efficacy towards science learning. We can claim that this positive effect resulted from the fact that creative drama method provides students with an equipped learning environment and students do their own learning. This finding is in partial agreement with the findings of the study on the effects of the use of creative drama method in science teaching on the self-efficacy beliefs of pre-service teachers conducted by Hamurcu (2008). Hamurcu (2008) reported a statistically significant difference in only one dimension of self-efficacy scale, while there were no significant differences in other dimensions, though there was an increase in post-test scores compared to pre-test scores.

In this study it was found that creative drama method did not have any significant effects on students' scientific process skills. This finding may have resulted from the fact that the practice lasted for a short period of time. This finding is not in agreement with the findings of the study conducted by Taşkın-Can (2013). Taşkın-Can (2013), who conducted a quasi-experimental study for three weeks, taught the subject of 5th grade light and sound subject with creative drama method on the experiment group, and reported that creative drama method increased students' scientific process skills.

In this study, it was found that creative drama method has positive effects on students' attitudes towards science. It was also confirmed with the data obtained with semi-structured interviews. Below are some student opinions in agreement with this finding.

“...I think it's a great idea. I mean learning this way is great. This helps us let go and recover ourselves. We both have and learn.” (S7)

“...I find it good. We had fun during classes. This way, we learned by thinking and building in our mind. It was better. I mean we comprehended the subject.” (S5)

We can claim that students developed positive attitudes towards science course since they associated concepts related to states of matter and heat subject with daily life during preparation/warm-up phase of creative method, they could express themselves as they wished during animation phase, and they had a relaxed classroom environment. This finding is in agreement with the findings of previous studies conducted on the effects of creative drama method on students attitudes towards science concepts and subjects (Çokadar & Yılmaz, 2010; Çopur, 2014; Demirağ, 2014; Doğru et al., 2010; Hendrix et al., 2012; Kahyaoğlu et al., 2010; Saka et al., 2016; Şahbaz, 2004; Timothy & Apata, 2014).

Consequently, according to the findings of the this study, in the teaching of 8th grade states of matter and heat unit, creative drama method can be highly practicable in terms of students, it can increase students' self-efficacy and attitudes towards science course, yet had no positive effects on students' scientific process skills. Based on the findings of this study, we can recommend that science teachers can use creative drama method in science teaching by meeting the physical requirements of creative drama learning environment. Teachers can use different creative drama techniques (role-play, pantomime, dramatization, etc.) instead of improvisation or role playing and play music in different styles instead of classical music. Additionally, we can suggest researchers of further studies that they investigate the effects of creative drama method on scientific process skills with longer period studies.

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Appendix-1

Session Plan-I

Lesson	Science
Class	8
Unit	States of Matter and Heat
Subject	Heat Exchange and State Change
Time	40+40
Subject acquisitions	8.6.3.1. He concludes that there is heat exchange during the change of state. It is mentioned that the temperature of the pure substances remains constant during the change of state. 8.6.3.4. He relates the changes in the state of daily life with the heat exchange.
Key Concepts	Temperature, heat, energy, core heat
Course tools	Rope, ball
Learning - Teaching Methods and Techniques	Creative drama method, improvisation, role playing
Preparation/warm-up phase (25 minutes)	<p>The teacher makes warm-up movements with the students. It divides students into 3 groups. Students are reminded of the istop game and the rules of the game that the teacher has designed are explained. A rope is given to each group. All group members must hold the rope with one hand. The student, whose name is said, holds the ball thrown into the air and quickly holds the rope that his group has. The student whose name is said and unable to hold the ball is eliminated. The game continues until one last group remains. If the game lasts long, the group with the highest number of students is announced as the winner. The teacher appears and takes care to be at the same distance to each group. The teacher takes the ball in his hand. He tells the name of a member of the groups throws the ball up and plays the role of a referee in the students' game. At the end of the game, the teacher reminds the students of the movements of solid, liquid and gaseous matter particles. Assuming that each student is a particle in the game, he asks questions to make the conclusion that the student who leaves to hold the ball during the game takes heat and therefore leaves the group. In the meantime, the student, who lost the bond with the teacher group, broke the bond between the particles as a result of the solid substance taking heat and as a result, it became liquid; The student throws the ball in the air and holds the string tightly on the rope of the group, and asks the students to construct the questions that will make the conclusion that the liquid substance turns into solid state by bonding with other particles. In addition, it prepares the ground for the simulation that the energy used by the student to catch the ball thrown into the air is the energy given to the group and that the energy spent to return to the group to hold on to the rope is the heat that the matter gives out.</p> <p>Teacher leaves the group, which is assumed to be solid, to catch the thrown ball, to the event that the solid becomes liquid by taking heat (melting); In the group, which is assumed to be liquid, it likened the phenomenon of a student's throwing the ball up and coming to the group from outside and approaching each other in the group, making the liquid solid by giving heat (freezing).</p> <p>In addition, teacher from a group supposed to be liquid leaves a student to leave the ball to catch the ball thrown, the liquid becomes gaseous by evaporation (evaporation); In the group that is supposed to be gas, a student throws the ball up and comes to the group from the outside, and it is similar to the fact that the people approaching each other even if there is a small amount of gas (condensation). Teacher asks questions to students so that they can make these inferences.</p> <p>In addition, in the group assumed to be a solid, the first main melting point where the student left the group to catch the ball was compared to the first main freezing point on which he was held on the rope when he returned to the group. Likewise, the main evaporation event in which the student leaves the group is likened to the condensation event for the group, which is assumed to be a liquid</p>

	<p>substance. The freezing and melting points and evaporation condensation points are equal for each substance and the point at which the student is separated and the same point when joining the group is explained by the students based on the simulation.</p> <p>As a result of the game, the questions of the group, whose numbers are different from the two groups with different numbers, are quicker and therefore, the assumption that these two groups are solids will have different melting temperatures in both groups. The teacher gives examples of substances with different melting temperatures.</p>
<p>Animation phase (30 minutes)</p>	<p>Students are divided into three groups. Groups are solid, liquid and gaseous substances; They are asked to design and play a scenario within the framework of state changes and the concepts of melting, freezing, evaporation, and condensation that occur during this change. After the students' performances are over, the teacher asks questions of imperfection if there is incomplete learning. It is emphasized subject acquisitions.</p>
<p>Evaluation/discussion phase (25 minutes)</p>	<p>Students are asked to create a circle. Attention is paid to earning subject acquisitions within the framework of the following questions.</p> <ul style="list-style-type: none"> • What is melting and freezing? • What is the melting point, freezing point, evaporation point, condensation point? • What is the reason why the air gets warm when it is snowing or raining? • What is the reason we cool off after pouring water on concrete in summer? • Pure water normally freezes at 0 oC, but impure water freezes at lower temperatures, what is the reason? • What do you think is the reason for keeping water in barrels when storing large amounts of fruit and vegetables? <p>What is the reason that the roads are salted in the winter?</p>

Efficiency of Reading Time Application in Schools through the Eyes of Students

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Abstract

Reading is the process of vocalizing a text by perceiving it through the eyes and the brain and of forming meanings from sounds. A student who learns to read in the first grade can develop this skill in later grades and read more fluently, in accordance with the type of text and reading rules. In order for students to read more willingly texts or books other than the ones they read in lessons, their reading skills should be developed, and they should acquire reading habit. Students' acquisition of reading habit is closely related to interest and support by the class teacher at primary school, and by Turkish teachers and their families at secondary school. Teachers and families benefit from various applications so that students can acquire reading habit. Some schools engage in certain activities for this purpose. One of such activities in schools is reading time application. In this study, we aim to put forward certain implications related to reading time application in schools and to seek ways to increase its efficiency, resting on the findings from the opinions of students studying at Erzurum Yakutiye 1071 Malazgirt Secondary School, where this activity was applied, on reading time application. At the end of the application, which was carried out in the 2017-2018 academic year; a semi-structured interview form, prepared by the researcher and consisting of six questions- apart from personal information- was applied to the students. Eventually, data obtained from one hundred and twenty students is evaluated with content analysis, which is one of qualitative data analysis methods. It is concluded that 93% of the students whose opinions are consulted in the study find reading time application efficient, and 6.5% of them find reading time application inefficient.

Keywords: Turkish education, reading skills, reading habit, reading time.

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Introduction

Reading Comprehension

Reading is the signification of the text which the eyes see and the brain perceives. According to Yılar, who states that reading is a meaning-making process that occurs in the mind of a person as a result of the interaction of the reader, writer and environmental factors, reading is the process of making meaning; one should be motivated to read; and reading should be fluent and strategic (2015). In addition; reading, one of the most effective tools of systematically improving language and personality, minimizes educational barriers which have negative impacts on the development of society (Özbay, 2011). With the help of reading, individuals can solve a lot of problems in their daily lives and be more successful in their academic lives. Reading is also an important process which positively affects the individual's contribution to society. The continuation of this process in a desired way is dependent on correctly carrying out all works related to reading from the time when it is first taught until the time it is developed and has become habit. In order for reading to become habit, certain applications should be conducted before, during and after reading. Before reading, one should set an objective and determine appropriate methods and techniques. During reading, attention should be focused on reading text, and an effort should be made to comprehend this text. After reading, what are comprehended from reading text should be told and summarized. If the objective is not set at the beginning, and above-mentioned activities are not followed, comprehension cannot be fully realized, Comprehension is identifying the text that is being read and responding to this text by the relevant section of the brain. Comprehension is the imagination of the message that is desired to be conveyed in the reader's mind without having any illusions. (Temizkan, 2009, p. 44). Factors such as the fact that the expression of the text is built on complex and unknown words (Güneyli, 2003), becoming obsessed with the writer's opinion (Göğüş, 1978) and lack of motivation and experience (Moffet and Wagler, 1976) play role in incomplete comprehension or mis-comprehension of the text being read. Therefore, the text being read should be read with an understanding which will be far away from these problems. Reading comprehension is a complex skill which utilizes a number of sources (Oliviera et al., 2020). That an individual has a reading habit is essential for the improvement of reading comprehension. The reading skill, with its structure that can be improved, acquired by first reading and writing exercises can only reach significance when it has become into habit (Sünbül et al., 2010).

Reading Habit

Habit means getting used to something and maintaining this state. Getting used to something, i.e., having a habit, cannot be achieved in a short time (Yiğit, 2006, p.15). Reading habit is a fixed action necessary for the self-realization of an individual, and certain steps should be followed for the continuation of this process. The fact that an individual who learns to read in primary school regards reading as a necessity in the later years of his life and allocates time for reading in every situation and

place is an indication that this individual has a reading habit. Reading habit is the most important habit that should be acquired to students who have already become familiarized with letters, syllables and sounds and start to have reading skill in the first grade of primary school. Reading habit is lifelong carrying out the reading action in a continuous and orderly way and in a critical/investigative manner, following perceiving it as a necessity and source of pleasure (Temizkan, 2009, p.51).

Like all other habits, reading habit of an individual improves over time as well (Thanuskodi, 2011). Acquiring reading habit or making students acquire this habit is a difficult process. After primary and secondary school, making students acquire this habit is difficult (Karakaş, 2013). In this process, students should acquire behaviors of being able to select good quality books and valuing their time by reading books (Calp and Calp, 2015), of attaching importance to reading and books (Balci, 2013), and of establishing a regular friendship with books (Gündüz, 2015). To make students acquire reading habit, first of all, parents should behave exemplarily on this matter for their children at home and adopt an attitude which will encourage their children to read. That parents have reading habit may facilitate children's reading habit acquiring process. Parents should introduce their children good quality books from an early age (Yılmaz, 2018), take them to bookstores, libraries and create a library for them at home, and allocate time for reading at home (Arıcı, 2018). Apart from families; schools, teachers, publishing houses, libraries, television and radio channels should carry out effective activities to acquire children the habit of reading books.

Reading Time Application

This application is an activity conducted for encouraging teachers and students to read by allocating one period (class hour) for only reading books. The essence of this activity is that students, teachers and other staff at school read books at the same time. These kinds of activities are carried out in schools by school administrations and in particular Turkish teachers, who attach importance to reading and acquiring students reading habit. The place and features of reading time activity in the syllabus are determined by school administrations as part of a program. In the school where the study was conducted, reading time activity is carried out in a period of different courses (e.g. Maths, Science) every week, and in each reading time activity, the last five to ten minutes of the period is allocated for talking about the books that have already been read in that reading time activity. First of all, the teacher of the particular course, which coincides with that reading time, introduces the book read by him/her to students, and then students introduce the books read by them to their classmates/ the class.

Method

In this study, interview method is used, and opinions of the students on reading time application in school are taken using standardized open-ended interview (Fraenkel, Wallen and Hyun, 2011). For the interviews. semi-structured interview form is used.

Study Group

The study group of this research consists of 30 students from fifth grade, 30 students from sixth grade, 30 students from seventh grade and 30 students from eight grade -totally 120 students, who study at Erzurum Yakutiye 1071 Malazgirt Secondary School. In the table below, the characteristics of the students participating in the research are given.

Table 1. Characteristics of Students Participating in the Research

Grade	Gender		(%)
	Female (f)	Male (m)	
Grade 5	16	14	25
Grade 6	15	15	25
Grade 7	14	16	25
Grade 8	15	15	25
Total	120		100

Data Collection Tool

In the research, the interview form prepared by the researcher is used as a data collection tool. The interview form consists of a personal information form and six questions. In this research, opinions of field experts and opinions of expert people on qualitative research are taken to ensure the internal validity of interview forms. In order to ensure internal and external validity of the research, pilot application of interview forms are conducted. Following the pilot application, interview forms are put into the final form.

Data Analysis

Qualitative data analysis method is used in the research. Contents of the semi-structured interviews applied to the students are evaluated with descriptive analysis and content analysis methods, and ethical principles are followed. The interview questions asked to the students aim to determine the efficiency and effectiveness of reading time application, sources of obtaining the books that the students read and people who encourage students to read. From the interview forms applied to the students, main themes and sub-themes for effectiveness, willingness, efficiency, sources of obtaining books, book selection criteria, continuity and encouragement indicators are obtained.

Results

Opinions of the students taking part in the study are shown in the table below by components and themes.

Table 2. Percentage distribution of students' opinions by components and themes

Component	Theme	Grade 5 (%)	Grade 6 (%)	Grade 7 (%)	Grade 8 (%)
Students' opinions on the efficiency component	Efficient	93	97	94	90
	Inefficient	7	3	6	10
Students' opinions on the effectiveness component	reads books	73	80	97	60
	sometimes reads books	3	5	3	30
	does not read books	24	15	0	10
Students' opinions on the willingness component	willingly	89	83	87	73
	sometimes willingly, sometimes unwillingly	11	17	13	27
	borrows from the library	57	44	56	64
Students' opinions on the source of obtaining books component	sometimes borrows from the library, sometimes buys from the bookstore	23	13	20	13
	buys from the bookstore	10	20	7	10
	sometimes borrows from the library, sometimes borrows from friends	10	23	17	13
	select books to read as they are suitable for their ages.	33	27	27	30
Students' opinions on the book selection criteria component	selects books to read as they are enjoyable/intresting	30	23	20	23
	selects books to read because of the cover and content of books	17	20	20	23
	selects books to read because of the publisher	10	17	10	10
	selects books to read because of the genre and author of books	10	13	23	14
Students' opinions on the continuity component	reads after doing homework	40	47	67	77
	reads before bedtime	26	0	0	0
	reads at weekends	20	0	0	0
	does not read books at home	10	53	33	23
Students' opinions on the encouragement component	encouraged by mother	30	20	27	23
	encouraged by father	26	13	10	17
	encouraged by teachers	14	7	7	10
	read on their will	14	0	13	37
	encouraged by family members other than parents	16	7	10	13
	No encouragement by anybody	0	53	33	0

Opinions of 5th grade students on the efficiency component

According to Table 2, 93 % of the fifth grade students state that reading time activity is efficient, and 7 % of them think that this activity is inefficient. Some of the striking answers of the students are noted below. The student coded as F2, who thinks that reading time activity is efficient, says, " Yes, I think it is efficient as it improves our reading comprehension skills." The student coded as F3, who thinks that reading time activity is efficient says, "Yes, it is being efficient. We are acquiring reading habit." The student coded as M2, who thinks that reading time activity is efficient, says, " I think it is efficient. Because, reading is a good activity." The student coded as F1, who thinks

think reading time activity is inefficient, says, " In my opinion, it is not efficient as some teachers do not allow this activity, thinking that they cannot follow their own course program." The student coded as M1, who thinks that reading time activity is inefficient, says, "No. Because, some students do not read during this activity".

Opinions of the 5th grade students on the effectiveness component

According to Table 2, as stated by the students, 73 % of the fifth grade students read books, 3 % of them sometimes read books, and 24 % of them do not read books during reading time activity. Some of the striking answers of the students are noted below. The student coded as M4, who states that he reads books, says, "I read books. I do not busy myself with anything else." The student coded as F5, who states that she sometimes reads books, says, "I sometimes read books. But, sometimes, I just look at books." The student coded F6 says, "I read books most of time. But, when we have an exam, I get permission from the teacher to study for that exam." The student coded as M5, who states that he/she does not read books, says, " I do not read if the book is boring."

Opinions of the 5th grade students on the willingness component

According to Table 2, as stated by the students, 89 % of the fifth grade students read books willingly, and 11 % of them sometimes read books willingly and sometimes read books unwillingly during reading time activity. Some of the striking answers of the students are noted below.

The student coded as F7, who states that she reads books willingly, says, "I am overly intrested in reading books." The student coded as M6, who states that he sometimes reads willingly and sometimes unwillingly, says, "I read the book that I love willingly but the one that I do not like unwillingly."

Opinions of the 5th grade students on the source of obtaining books

According to Table 2, as stated by students, 57 % of the fifth grade students borrow the books that they read from the library, 23 % of them sometimes borrow books from the library and sometimes buy books from the bookstore, 10 % of them buy books from the bookstore, and 10 % of them sometimes borrow from the library and sometimes borrow from their friends.

Opinions of the 5th grade students on book selection criteria component

According to Table 2, as stated by students, when selecting books to read, % 33 of the fifth grade students select book to read as they are suitable for their ages, 30 % of them select books to read as they are enjoyable, 17 % of them select books to read because of the cover and content of books, 10 % of them select books to read because of the book publisher, and 10 % of them select book to read because of the genre and author of books. Some of the striking answers of the students are noted below.

The student coded as M8, who states that he selects books to read because of the genre and author of books, says, "I mind that the book's genre is novel or comic book, or contain adventure or reaction." This student emphasizes on the genre of books for book selection criteria. The student coded as M9, who states that he selects books to read because of the cover and books, says, "I care about that the book is good and meaningful." This student emphasizes on the form and content of books for book selection criteria.

Opinions of the 5th grade students on the continuity and encouragement components

According to Table 2, as stated by the students, 40 % of the fifth grade students read books after doing their homework, 26 of them read book before bedtime, and 20 % of them read books at weekends. 10 % of the fifth grade students do not read books at home.

According to Table 2, as stated by the students, 30 % of the fifth grade students are encouraged to read books by their mothers, 26 % of them are encouraged by their fathers, 16 % are encouraged by family members other than parents, and 14 of them are encouraged by their teachers. 14 % of the students read books on their will. Some of the striking answers of the students are noted below.

The student coded M10, who states that he is encouraged to read books by his mother, says, "I read a little. My mum tells me to do so." On the other hand, the student coded as F12 says, "Before bedtime, at 9 o'clock, I read a book. And, my mum listens to me." The student coded as F11, who states that he does not read books at home, says, "No, I don't read books at home. Rather, I do homework."

Opinions of the 6th grade students on the efficiency component

According to Table 2, 97 % of of the sixth grade students state that reading time activity is efficient, and 3 % of them think that this activity is inefficient. Some of the striking answers of the students are noted below.

The students coded as M2, who thinks that reading time activity is efficient, says, "I think so. Because, a person who is not good at reading may improve this skill in reading time activity." The students coded as M6, who thinks that reading time activity is efficient, says, "Yes. Because, when we communicate with someone, our sentences will be better," The students coded as M15, who thinks that reading time activity is efficient, says, "Efficient. Because, we improve our reading skills. But, some students do not read." The student coded as M14, who thinks that reading time activity is inefficient, says, "No. this activity should last for at least 2-3 periods."

Opinions of the 6th grade students on the effectiveness component

According to Table 2, as stated by students, 80 % of the sixth grade students read books , 5 % of them sometimes do not read books, and 15 % of them do not read books during reading time activity. Some of the striking answers of the students are noted below.

The student coded as M14, who states that he reads books during reading time activity, says, " My deskmate wants to play games with me, but I read." The student coded as M3, who states he reads books during reading time activity, says "I sometimes read, but at most time I busy myself with other things." The student coded as M6, who states that he does not read books during reading time activity, says " I do not read books at most times."

Opinions of the 6th grade students on the willingness component

According to Table 2, as stated by students , 83 % of the sixth grade students read books willingly, and 17 % of them sometimes read books willingly and sometimes unwillingly during reading time activity. Some of the striking answers of the students are noted below.

The student coded as F14, who states that she reads books willingly, says, " Of course, I read willingly. One does not read a book by force of others." The student coded as M8, who states that he sometimes reads books willingly and sometimes unwillingly, says, " I can understand a book when I am willing to read. But, I do not remember what I read later when I am forced to read by others."

Opinions of the 6th grade students on the source of obtaining books

According to Table 2, as stated by students, 44 % of the sixth grade students borrow the books they read from the library, 23 % of them sometimes borrow books from the library and sometime borrow from their friends, 20 % of them buy books from the bookstore, and 13 % of them sometimes borrow from the library and sometimes buy from the bookstore.

Opinions of 6th grade students on book selection criteria component

According to Table 2, as stated by the students, when selecting books to read, 27 % of the sixth grade students select books to read as they are suitable for their ages, 23 of them select books as they are enjoyable and adventurous, 20 of them select book because of the cover and content of books, 17 of them select books because of the book publisher and because the book is included in the list given by the teacher, and 13 of them pay attention to the genre and author of books. Some of interesting answers of the students are noted below.

The student coded as M12, who states that he selects books to read because of the book publisher and because the book is included in the list given by the teacher, says, " It is important for me that books are in the list given by the teacher. and that books are not torn and there are no missing pages." The student coded as F6, who states that she selects book to read because of the the cover and

content of books, says " I care about that books are adventurous and have good quality." Thus, this student emphasizes on the of form and content for book selection criteria.

Opinions of the 6th grade students on the continuity and encouragement components

According to Table 2, as stated by the students, 47 % of the sixth grade students read books at home, and 53 % of them do not read books at home.

According to Table 2, 53 % of the sixth grade students are not encouraged by anybody to read books at home. 20 % of the students are encouraged by their mothers to read books at home, 13 % of them are encouraged by their fathers, 7 % of them are encouraged by family members other than parents, and 7 % of them are encouraged by their teachers. Some of the striking answers of the students are noted below.

The student coded as M2, who states he is encouraged by his mother to read books, says, " My mum asks me to read, but I don't read." On the other hand, the student coded as F4 says, "I am encouraged by my mum, I read half an hour or an hour." The student coded as M14, who states that he does not read books at home, says, "I read books only at school."

Opinions of 7th grade students on the efficiency component

According to Table 2, 94 % of the seventh grade students state that reading time activity is efficient ,and 6 % of them think that this activity is inefficient. Some of the striking answers of the students are noted below.

The student coded as F3, who thinks that reading time activity is efficient, says, " Whenever I read a book, I believe I am getting better on solving test questions on paragraphs." The student coded as F13, who thinks that reading time activity is efficient, says, " I think this activity is efficient. Because, those who are bad at reading improve this skill," The student coded as M12, who thinks that reading time activity is efficient, says, "Yes. Because, at home, I study lesson; I do not read books." The student coded as M14, who thinks that reading time activity is inefficient, says, "No, it is not efficient. My classmates do not keep quite during this activity."

Opinions of the 7th grade students on the effectiveness component

According to Table 2, as stated by the students, 97 % of the seventh grade students read books and, 3 % of them sometimes do not read, during reading time activity. Some of the striking answers of the students are noted below.

The student coded as F7, who states that she reads books during reading time activity, says, " Yes, I read. Because, there is no reason for not to read." The student coded as K13, who states that he does not read books during reading time activity, says, "I do not read books; I draw pictures."

Opinions of the 7th grade students on the willingness component

According to Table 2, as stated by the students, 87 % of the seventh grade students read books willingly, and 13 % of them sometimes read books willingly and sometimes unwillingly, during reading time activity. Some of the striking answers of the students are noted below.

The student coded as F3, who states she reads books willingly, says, " I read books willingly as I love reading." The student coded as M4, who states that he sometimes read books willingly and sometimes reads book because he is forced to do it, says, "If the book is boring, I read it unwillingly. If it is not boring, I read it willingly,"

Opinions of the 7th grade students on the source of obtaining books

According to Table 2, as stated by the students, 56 % of the seventh grade students borrow the books that they read from the library, 20 % of them sometimes borrow books from the library and sometimes buy from the bookstore, 17 % of them sometimes borrow books from the library and sometimes borrow from friends, and 7 % of them buy books from the bookstore.

Opinions of 7th grade students on the book selection criteria component

According to Table 2, as stated by students, when selecting books to read, 27 % of the seventh grade students select books to read as they are suitable for their ages, 23 % of them select because of the author of books, 20 of them selects because of the cover and content of books, 20 % of the select as books are adventurous, and 10 % of them select because of the publisher of books. Some of the striking answers of the students are noted below.

The student coded as M13, who states that he selects books to read as they are adventurous, says, " I want books to be adventurous," Thus, this student emphasizes on the genre of books. The student coded as M7, who states that he selects books to read because of the cover and content of books, says, " I pay attention that books are not boring, and that the cover does not indicate a bad content." Thus, this student emphasizes on the form and content of books that he selects.

Opinions of the 7th grade students the continuity and encouragement components

According to Table 2, as stated by the students, 67 % of the seventh grade students read books at home, and 33 of them do not read books at home.

According to Table 2, 33 % of the seventh grade students are not encouraged to read books by anybody, 27 % of them are encouraged by their mothers, 13 % of them read books on their will, 10 of them are encouraged by their fathers, 7 % of them are encouraged by family members other than parents, and 7 % of them are encouraged by teachers. Some of the striking answers of the students are noted below.

The student coded as F15, who states that she is encouraged to read books by her mother, says, " I read books. I am encouraged by mum to do so." The student coded as M9, who states that he is not encouraged to read books by anybody, says, "Yes, I read books. But, nobody encourages me to do it. I read because I love it."

Opinions of 8th grade students on the efficiency component

According to Table 2, 90 % of the eighth grade students state that reading time activity is efficient and, 10 % of them think that this activity is inefficient. Some of the striking answers of the students are noted below.

The student coded as F3, who thinks that reading time activity is efficient, says, " I think the reading time application at school is efficient . Because, I have no much time to read at home." The student coded as F5, who thinks that reading time activity is efficient, says, " I find it efficient. Thanks to this reading time application alone, students may love reading books." The student coded as M6, who thinks that reading time activity is efficient, says, "In my opinion, reading time application is efficient as it enables us to read questions and understand them." The student coded as F9, who thinks that reading time activity is inefficient, says, "No. Because, at the most exciting part of the book, my classmates disturb me." The student coded as M10, who thinks that reading time activity is inefficient, says, "When I am sad and when there are lessons I love, and reading time activity takes place in these lessons, I think it is not efficient."

Opinions of the 8th grade students on the effectiveness component

According to Table 2, as stated by the students, 60 % of the eighth grade students read books, 30 % of them sometimes read books, and 10 % of them do not read books, during reading time activity. Some of the striking answers of the students are noted below.

The student coded as F1, who states that she reads books during reading time activity, says, " I always read books during this activity and understand what I read." The student coded as M6, who states that he sometimes reads books during reading time activity, says, I sometimes read books and sometimes solve test questions." The student coded M11 says, "I sometimes read and sometimes do not read." The student coded as M12, who states that he does not read books during reading time activity, says, "I pretend to read a book and I solve test questions."

Opinions of the 8th grade students on the willingness component

According to Table 2, as stated by the students, 73 % of the eighth grade students read books willingly, and 27 of them sometimes read books unwillingly ,during reading time activity. Some of the striking answers of the students are noted below.

The student coded as 14, who states that he/she reads books willingly, says, "I am motivated by myself to read books." The student coded as M4, who states that he sometimes reads books willingly and sometimes is forced to read, says, "I sometimes read books willingly. In general, I do not like reading books."

Opinions of the 8th grade students on the source of obtaining books component

According to Table 2, as stated by the students, 64 % of the eighth grade students borrow the books that they read from the library, 13 % of them sometimes borrow books from the library and sometimes buy from the bookstore, 13 % of them sometimes borrow books from the library and sometimes borrow from their friends, and 10 % of them buy books from the bookstore.

Opinions of the 8th grade students on books selection criteria component

According to Table 2, as stated by the students, when selecting books to read, 30 % of the eighth grade students select books to read as they are suitable for their ages, 23 % of them select books because they are interesting, 23 % of them select books because of the cover and content of books, 14 % of them select books because of the author of books, and 10 % of them select books because of the publisher of books. Some of the striking answers of the students are noted below.

The student as coded as M2, who states that he selects books to read as they are suitable for his age. says, "I care about whether or not the book is suitable for me, or if I can understand the book or not." Thus, this student emphasizes on the suitability of books for his/age. The student coded as F2, who states that she selects books to read because of the cover and content of books, says, "I care about the title of book, the summary at the back page. the writing type of text and the cover." The student coded as F5, who states that she selects books to read because of the author and genre of books, says. "I prefer crime fiction as I like it." The student coded as F14, who states that she selects books to read because of the author of books, says, "That the book is good quality, written by well-known authors, and at least four hundred pages is important for me."

Opinions of the 8th grade students on the continuity and encouragement components

According to Table 2, as stated by students, 77 % of the eighth grade students read books at home, and 23 of them do not read books at home.

According to Table 2, 37 % of the eighth grade students state that they read books willingly. and that nobody encourages them to read books. Table 2 shows that 23 % of the students are encouraged to read by their mothers, 17 % of them are encouraged by their fathers, 13 % of them are encouraged by family members other than parents, and 10 of them are encouraged by their teachers. Some of the striking answers of the students are noted below.

The student coded as F9, who states that she is not encouraged to read books by anybody, says, "In my free times, I read books. Nobody encourages me to do so." The student coded as M11, who states that he is encouraged by his mother, says, "I occasionally read books at home, at my mum's request." The student coded as M14, who states that he does not read books at home, says, " No. I have no reading time at home." Thus, this student expresses sincerely the fact about his reading habit.

Discussion, Conclusion and Recommendations

90 % and above of the students who took part in the study find the reading time application efficient. Therefore, it is seen maintenance of reading time application will positively affect students' reading habits. 73 % of the fifth grade students, 80 % of the sixth grade students, 97 % of the seventh grade students, and 60 % of eighth grade students state that they read books during reading time activity. The main reason for that book-reading rates of eighth grade students are lower than the rates of other grades are the existence of central placement exam and teachers who allow students to study for this exam during reading time activity because of exam concerns. The majority of teachers (81,8 %) read books as well while students read books during reading time activity (Aksoy and Öztürk, 2018). However, there are also teachers who do not read books and check if student read book or not during reading time activity. More than 83 % of the fifth, sixth, seventh grade students and 73 % of the eighth students taking part in the study read books willingly during reading time activity.

More than 44 % of the students taking part in the research borrow the books they read from the library. This is mainly due to the fact that the library is close to the school. The percentage of buying books from the bookstore by students is 7-20 %. When selecting the books to read, the students pay attention that books are suitable for their ages and that they are enjoyable / interesting. In other words, students select books to read according to their interests.

10 % of the fifth grade students, 53 % of the sixth grade students, 33 % of the seventh grade students, and 23 % of the eighth grade students do not read books at home. The students with the highest rate of not reading books at home are sixth grade students. At least 23 % of the students are encouraged to read books by their mothers. At least 33 % of sixth, seventh and eighth grade students are not encouraged to read books by anybody. Teachers and parents should show more interest in these students and encourage them to read books. It is essential that teachers and parents should work together and in collaboration to create a suitable reading and learning environment.

Various studies reveal that students' reading habits may be different depending on gender and regions (Loan, 2017). In addition, it is known that students with parents who have "high" education usually have a positive attitude towards reading books (Calp, 2018) compared to students with "illiterate parents". While teachers acquire students reading habit, they take into account these differences and try to minimize them, and attach importance to reading time applications (Aksoy,

2014) and do various encouraging activities for students, This fact should be kept in mind that individuals who have reading habit are aware of social values (Batur, Gülveren and Bek, 2010) and make their lives easier by adopting these values. In addition, reading habit contributes to mental development of children and the way they use language (Sert, 2010). Reading activities in which children engage at a young age play an important role in acquiring reading habit at later ages and having a positive attitude towards reading (Darıcan, 2014).

In this study, it is found that reading time application has a crucial role in acquiring students reading habit. This application is conducted mostly under the leadership of Turkish teachers in schools. With this application, students' interest in books and reading increases, and a reading culture is formed in schools. Students who do not have the habit of reading books get used to reading books, even if gaining this habit is difficult at the beginning, with the help of this application.

It is stated by teachers that reading time activity is effective in making students acquire reading habit (Köksal and Değirmenci, 2015), and that this activity has a positive effect on the excitement, desire and love of reading habit of students (Aksoy and Öztürk, 2018). However, it is necessary that the time allocated for this activity should be increased, and reading time application should be extended to different days of the week (Şahin, Maden and Yılmaz, 2011).

The teachers who took part in in the study by Kanık Uysal (2010) give a positive opinion on reading time activity and see it as an opportunity of acquiring students reading habit. They also point out that reading time activity has a positive effect on students' book reading attitude and love for books, and that students read more than before after the application of this activity. Therefore, primarily, factors that influence reading habit should be improved in order for students to gain this habit. According to Arıcı (2018, p.142), reading habit of students are affected and improved by family, school, and the enviromental factors. Factors arising from oral culture tradition and factors related to the mindset, society, culture, economy, media and education affect reading habit.

For a sound intellectual development (Chettri and Rout, 2013), a good writing habit is necessary, and this habit plays an important role in achieving a practical efficiency. If family members read books at home together (Gökçe et al, 2012), children's sense of responsibility improves. Moreover, skills such as planning, faster reading, language also improve indirectly. It should be kept in mind that students with a good reading habit and with a positive attitude towards reading can comment on matters better (Rasiah et al., 2011). Their critical skills will also be developed. We make the following recommedations to improve students' reading habits:

First of all, children should be introduced to books at a young age, and a library should be created at home.

Parents should read stories / books to their children (Bamberger, 1990), and what children read from books should be discussed at home.

Educational environments for reading skills (Yıldız, 2018) should be prepared in order to acquire children reading habit by selecting / making children select children's books that will acquire children reading habit (Okuyan, 2009).

The importance of reading attitude in the development of reading habits (Rodrigo et al., 2014) should be taken into account in order for children to develop a positive attitude towards reading.

In order to acquire students reading habits, writers (Erdem, 2015) or poets etc. can be invited to schools.

Reading time activity should be conducted more meticulously in schools.

Considering that the digital age wipes out reading habits (Akarsu and Darıyemez, 2014) and that students usually pass their time watching TV, playing computer games or surfing on the Internet (Deniz, 2015), children should be taught how to deal with overwhelming world of information, and their disciplined reading skills should be improved (Davidovitch et al., 2016) .

Teachers who have no reading habit or are too weak readers to be a model in this regard (Ungan, 2008) should be educated on reading habit. It should not be overlooked that a teacher affects students' attitudes, goals, literacy preferences and commitment to life (Adnan et al., 2016). It is essential that teachers should have reading habit and related knowledge and skills related to reading culture (Karaarslan, 2016).

In addition, central exams should be transformed into a format where students will use their reading and writing skills more effectively (Akın, 2016) by removing these exam's qualities that hinder students' reading habits.

The effect of motivation on reading habit (Ünal and Sevimli, 2017) should always be taken into account, and students' motivation on reading skills should be increased.

First of all, the reading habit of students should be improved by integrating communication devices or digital devices into classroom activities (Tanjung et al., 2017).

Students may be asked to animate the books they read in the garden (Yurtbakan, 2017).

The books that students read can be evaluated by different methods according to multiple intelligence areas (making songs from readings, rewriting what they read, or evaluating themselves by putting themselves in the place of the author, etc.).

Students' attitudes towards reading, the environment and their preferred reading materials (Rosli et al., 2017) can be determined, the state of their reading habits are revealed, and thus their reading habits can be improved.

As social networks of students, intensive programs at school, time spent with friends, and lack of reading desire (Skenderi et al., 2017) hinder reading habits, the burden of these factors on children should be eliminated .

Students who read books at school can be awarded (Ameyaw et al., 2018). Students can be gifted with books which will encourage them to read and go to the library, by teachers/directors at every opportunity.

Seminars, workshops, symposiums and conferences (Oluwabiy ve Adetunji, 2018) that may have influence on students' reading habits can be held. In order to promote students' reading and their love for books, comics can be written (Gürsoy, 2018), and students are made to read them.

In order for children to select books that are suitable for their ages and to prefer books that will improve their awareness and sensitivity of language (Türkben, 2019), they should be guided by their teachers.

Various sources of external motivation (Özcan et al., 2019) originating from recognition, being social, adaptation, competing and school, which affect students' reading habits, should be eliminated.

Activities that will improve reading habits of students (Balcı et al., 2012) can be included not only in the Turkish lesson curriculum but also in the curriculum of other lessons.

All governmental institutions , non-governmental organizations and school officials, teachers (Mohsin & Sonwane, 2013) and families should work in cooperation in the preparation of books that are suitable for the levels and interests of children and in the acquisition of reading habits by children.

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Evaluation of Audiobook Listening Experiences of 8th Grade Students: An Action Research

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Abstract

In this research, audiobook listening experiences of 8th grade students are discussed. In this context, the effect of audiobooks on students' attitudes towards listening is determined and their opinions on audiobooks are evaluated. In the study, action research design, one of the qualitative research methods, was used. The prepared action plan covers an 11-week period in the 2018-2019 school year. The research was conducted in an 8th grade class with 24 students in a secondary in the province of Kayseri, in Talas district. The research data were collected by using the listening attitude scale for secondary school students, student diaries, semi-structured interview forms and interview records. The change in students' attitudes scale, within the framework of the action plan, was identified by using the paired t-test analysis with pre-test and post-test applications. The qualitative data collected on audiobook listening experience in students were analyzed by using content analysis. According to research results, audiobooks have a positive effect on students' attitudes towards listening. While the most important advantages of audiobooks are the fact that they can be listened to at any place, they enrich imagination and encourage students to use the Internet in a more beneficial way, their most common disadvantages are the fact that they do not improve reading speed, that they do not serve for exams and that they cause attention deficit. In the study, it was concluded that event-themed books were the favorite audiobook type in students.

Keywords: Audiobook, Advantage, Disadvantage, Student, Listening, Attitude

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Introduction

Human beings, being a social being, spend most of their daily life in listening process. Listening is a language skill that the individual acquires firstly in their life (Sever, 2011). Listening is the activity of completely understanding the message that the interlocutor intends to convey and reacting to it accordingly (Demirel, 1999). What is important in listening process is not only focusing on sounds that the listener has heard, but also being able to be sensitive to all stimuli, mainly tone, body language, speaking rate and word selection (Mackay, 1997). The listening process consists of three dimensions: hearing, paying attention and interpretation. Hearing is the first dimension of this process; however, paying attention and interpretation are the main dimensions in the process (Gocer, 2007). A good listener is the one who makes sense of what they hear, rather than just hearing sounds (Jalongo, 1995). In this sense, listening can be defined as a purposeful and cognitive language skill and the individual actively takes part in the listening process both physically and cognitively.

Being the most frequently used skill with a rate of 45% in the daily life, listening occupies an important place in human life (Wacker & Hawkins, 1995; Dogan, 2010). Individuals use listening intensively in both learning and daily communication environments. However, in parallel with developments in technology, the fact that individuals spend most of their time on television, tablet or mobile phone increases the importance of learning skill remarkably. In addition to daily life and personal relations, listening has an important place in professional business life as well (Brownel, 2016). Listening is a highly used skill in many fields, especially in psychology, medicine and education. This brings about a necessity for students to develop a positive attitude towards listening skill starting from primary school and to be trained as effective listeners.

Developments in informatics have brought a new dimension to the process in which learning skill is developed in learning environments. Through interactive whiteboards installed in classrooms, tablets provided for teachers and students in Fatih Project, and mobile phones used by the majority of students, it has now become very easy to access listening texts and to be involved in listening activities for educational purposes. According to the study conducted by Yildiz and Abdusselam (2016), it was concluded that 76.5% of students had Internet connection and that 89.7% of them actively used the Internet. These data bring about a necessity to use audiobooks in developing learning skills in students.

In this period called the information age, audiobooks occupy an important place in as a rich listening content and an educational electronic resource. On the other hand, audiobooks were first heard of when works such as Goethe's *Faust I*, Schiller's *Kabale und Liebe* and Samuel Beckett's *Das Letzte Band* were read, recorded into tapes and put up for sale in 1954 (Gocerler & Asutay, 2016). Based on later developments in information technologies, many works were introduced to the audience as audiobooks. The educational use of audiobooks, which are easily accessible in publishing

houses, audiobook applications, and social media, will contribute for students to use their listening skills more effectively and to use technological devices such as tablets, computers, and mobile phones positively for educational purposes. It can be said that audiobooks have many benefits such as especially developing vocabulary skills in students, getting accustomed to literary language, anticipating unfolding events in content they listen to, facilitating the interpretation process of the text, and raising language awareness (Lipson & Wixon, 2013). In addition, while listening to audiobooks, students may be more aware of many phonetic elements such as rhyme, voice repetitions, voice changes, stress, and intonation and gain experience on using language more effectively (Rubin & Opitz, 2007). Audiobooks are important educational tools in terms of activating the visual and auditory perceptions together, facilitating comprehension, and making the interaction with the book more enjoyable (Turker, 2019).

Audiobooks offer many conveniences for listeners. Among these conveniences are the fact that they can be stored digitally, people can listen to them at any time and place owing to their portability, and they can be resumed from where the listener has stopped the last time of listening. In addition, the fact they can be used for students with reading disabilities or visual impairment, that they are easily accessed, and that they have the ability to meet the digital age's necessities are among the most important features of audiobooks. All of these demonstrates that audiobooks can be used as a teaching tool in listening training today. Considering that listening training in Turkish classes is only conducted at the end of themes and activities on these texts are done to complete the process (Melanlıoğlu, 2013), these traditional activities for listening training are insufficient. In this sense, audiobook listening practices are regarded as an important educational activity in eliminating this drawback. While the fact that they enable the use of technological devices attract attention from students regarding the audiobook listening process, the fact that the listening process is controlled by students significantly contributes for students to gain a sense of responsibility. Due to all these features, audiobooks have become an indispensable part of today's education systems (Kara & Kes, 2016). In the present study, the impact of an 11-week audiobook listening practice of 8th grade students on their attitude towards listening is analyzed. Moreover, the present study focuses on opinions of students on their audiobook listening experience. Thus, the present study aims to bring a new practice to listening activities conducted at the secondary school level through audiobooks.

Importance of the Research

In identifying the research problem, the researcher learned that only 2 students had heard of the notion of audiobooks in 8/E Turkish classes with 24 students and that none of these students had a prior audiobook listening experience. In the literature review, it was found that no action research was conducted on the audiobook listening process in Turkey. It was observed that most of the studies conducted on audiobooks were limited to their impact on preschool literacy in the child (Emre, 2017)

and their impact on reading (Gocerler & Asutay, 2016; Turker, 2019). First of all, audiobooks are listening content. These books should be used to improve listening skills in secondary school students. Moreover, audiobooks should be introduced to secondary school students in order to use technology effectively and to raise their awareness on audiobooks. In the present study, students listened to different audiobook genres (event-themed, thought-themed and poetry) within the framework of an action plan. In addition, the impact of audiobooks on listening attitudes in students was found and positive and negative aspects of audiobooks were identified for students. In this context, the present study is considered important in terms of setting an example for teachers as field practitioners of audiobook studies and providing suggestions for researches in academic studies to be conducted on the subject. In this context, research questions were determined as follows in order to determine the effect of audiobooks on students' attitudes towards listening skill and to evaluate students' experiences towards audiobooks:

What is the impact of audiobook practices on listening attitudes in students?

What are students' opinions on the advantages of audiobooks?

What are students' opinions on the disadvantages of audiobooks?

How far do students like different audiobook genres?

Method

Research Model

In the present study, action research, one of the qualitative research methods, was used. Johnson (2015) defines action research as a model used to present the modus operandi of a system. According to Elliot (1991), action research is a method that contributes to professional development, learning process and educational practices in teachers by combining thought generation and research skills. Action research is a research method involving the identification of a problem related to the application process, systematic data collection in order to find a solution for this problem, and data analysis (Yildirim & Simsek, 2016). Since teachers were involved in the process in a systematic manner and responded to student needs, action research was used in the study. In addition, among the reasons why this model was used are the fact that it provides the opportunity to make changes in the application process while facing problems and that it has a pattern enabling the research to improve themselves.

McKernan (1991) analyses action research in three groups as technical/ technical-collaborative/scientific, mutual-collaborative/practical-deliberative, and emancipatory/ enhancement approach action research. Accordingly, the application is tested on a predetermined theoretical framework in technical-collaborative action research. In collaborative action research, the researcher and the practitioner cooperate and develop an interpretative perspective against problems that may

arise during the process. In emancipatory action research is the action research in which a critical position on the process conducted by the practitioner is prevalent. In the literature, this classification is used extensively. The present study falls under the category of technical-collaborative action research of McKernan's (1991) action research types. The audiobook practice was conducted and followed up within a certain action plan for 11 weeks in 8th grade students. At this stage, the action plan was revised and reorganized when necessary.

Action Research Process

Action research is conducted within the framework of an action plan that is planned in great detail. According to Sagor (2005), action research is conducted during processes such as finalizing the problem, preparing an action plan in a theoretical framework, transforming the application and results into a new action plan. This cycle was also applied in the present study. Accordingly, the researcher learned that only 2 students had heard of the notion of audiobooks in 8/E Turkish classes with 24 students and that none of these students had a prior audiobook listening experience. In the literature review, it was found that no study was conducted on the audiobook listening process at secondary school level. This was identified as the research problem. As a result of interviews conducted with two subject-matter experts and Turkish educators, it was stated that an application of audiobook listening at secondary school level would contribute greatly to the field and it was suggested that the research be designed as an action research. In this context, the research was designed as action research and a Validity Committee, composed of 2 Turkish educators, was formed. The validity and reliability of the research conducted in qualitative studies may be achieved with credibility and trustworthiness as well as confirmability and transferability criteria (Guba & Lincoln, 1982). At least one of these criteria should be identified in controlling the accuracy of findings (Creswell, 2015). Evaluation of the study by experts from various aspects is an activity that can be conducted in the context of credibility (Baskale, 2016). This practice is called expert review (Creswell, 2015). The validity committee that was formed in the present study is considered important in providing credibility and validity committee meetings are shown in the action plan.

In planning the action research, the process developed by Johnson (2015) was followed. Accordingly, first of all, the duration of the action research and what activities would be conducted at which week during this period were determined. The action plan to be conducted in an 11-week period is shown below.

Table 1. Research action plan

Item No	Weeks	Actions	Data Collection Tools
1	Week 1	Pre-test	Listening Attitude Scale
2	Week 2-4	Listening to event-themed audiobooks	Diary, Interviews
3	Week 4	1st Validity Committee Meeting	Interview Records
4	Week 5-7	Listening to thought-themed audiobooks	Diary, Interviews
5	Week 7	2nd Validity Committee Meeting	Interview Records

6	Week 8-10	Listening to poetry themed audiobooks	Diary, Interviews
7	Week 10	3rd Validity Committee Meeting	Interview Records
8	Week 11	Post-test	Listening Attitude Scale

The research was carried out with an 8th grade classroom with 24 students in the 2018-2019 school year in a secondary school in the province of Kayseri, Talas district. Required permits were obtained from relevant institutions. The fact that the research was a Turkish teacher in the relevant school and classroom in the period when the study was conducted facilitated the applicability of the study. Moreover, it was stated in the validity committee that conducting the study in an environment where the research was familiar with would have a positive impact on the study. In this sense, purposive sampling was used in selecting the sample in the study.

The research was conducted in a secondary school with a medium socioeconomic level. The classroom where the research was conducted is composed of 24 individuals in total, 10 girls and 14 boys. In the previous school year, 7 students had received a certificate of merit whereas 9 of them received a certificate of achievement. In the classroom where the research was conducted, an interactive whiteboard was installed, and the Internet could actively be used.

Data Collection Tools

The data collection tools used in the study are 'Listening Attitude Scale for Secondary School Students' developed by Karakus-Taysi and Özbay (2016), student diaries, semi-structured interview forms and interview records.

Listening Attitude Scale for Secondary School Students

The listening attitude scale developed for secondary school students by Karakus-Taysi and Özbay (2016) was used to identify the impact of listening attitude of students in the audiobook listening process. The scale was tested with the participation of 613 secondary school students randomly selected in central districts of Ankara. The scale had 33 items in total: 25 positive expressions and 8 negative expressions. As a result of the application and after exploratory factor analysis and item discrimination index procedures, the reliability coefficient of the scale was measured and a 4-factor 5-point Likert scale was developed with 30 items in total, involving 23 positive and 7 negative expressions. In measuring the reliability, the scale should have a value between 0 and +1; however, this value should be closer to +1 (Andrich, 1989). Cronbach Alpha (α) coefficient was used to measure the internal consistency coefficient of the scale, and Cronbach Alpha (α) reliability coefficient of the scale was measured to be 0.824. According to Ozdamar (2004), this ratio demonstrates that the scale is highly reliable. The construct validity of the scale was tested using the exploratory factor analysis. As a result of this analysis, a 4-factor construct was obtained, in which 48.72% of the total variance was explained. According to Buyukozturk (2001), explaining 45% of the total variance is sufficient in social sciences. In this sense, the construct validity of the scale is

sufficient. While the factor loads of the scale items varied between .451 and .837, it was stated in the study that the maximum score of this scale was 150 and the minimum score was 30. In light of these data, the scale is considered sufficient to measure listening attitudes in secondary school students. Required permits were provided by the researches in order to use the scale in the present study.

Student Diaries

Diaries are important data collection tools in obtaining observations, emotions, reactions and comments of the participants in the research process (Yildirim & Simsek, 2016). Diaries could be used to obtain data on all parts of the study (Johnson, 2015). In this context, daily activities were written in a diary by 4 volunteer students in the research process. According to Altun (2017), the fact that diaries are sincere, affectionate and unsophisticated makes them an important data collection tool for important research.

Interviews

In action researches, interview is a data collection tool that enables the researcher to obtain information that is not directly observed (Anagun, 2008). Interview is an efficient method in acquiring the opinions of participants and learning their reactions to research activities in a study (Yildirim & Simsek, 2016). In the present study, a semi-structured interview form with 5 questions was designed in order to acquire the opinions of students on the process and interviews were conducted at appropriate time. During the process, interviews were conducted with randomly selected and volunteer students and 11 students in total were interviewed.

Interview records in the Validity Committee, which was held at designated times in the action plan, were also used as an important tool in the study. During these meetings, the researchers took short notes on opinions and suggestions and this information was used in the process.

Data Analysis

Data obtained during the study using different data collection tools were analyzed using quantitative and qualitative data analysis methods. Pre-test and post-test data on the Listening Attitude Scale for Secondary School Students were subjected to one-way analysis of variance (t-test) by using SPSS 15.0 package program. In this sense, in order to analyze pre-test and post-test data in dependent groups using t-test, difference scores of two related sets of measurement need to have normal distribution. In this process, the level of significance was analyzed by using Shapiro Wilk test. Table 2 shows the SW test results.

Table 2. The Shapiro-Wilk test results of difference scores in pre-test and post-test on the level of significance

Factors	<i>n</i>	<i>S</i>	<i>p</i>
Regarding Listening as Necessary	24	.891	.872*
Individual Differences in Listening	24	.934	.764*
Listening Disabilities	24	.986	.864*
Effective Listening Habit	24	.772	.693

* $p > .05$

The difference scores of pre-test and post-test measurements that were applied according to Shapiro-Wilk test results were found to be $p > .05$ in all subscales. In this sense, it was concluded that the scores did not have a significant deviation from normal distribution and accordingly, parametric statistical techniques could be used in the study. Based on this, paired sample t-test was used to analyze pre-test and post-test data in the study. The progress made by the group within the framework of the action plan was identified in the context of subscales.

In the qualitative dimension of the study, the interview forms applied during and at the end of the process and data on student diaries were subjected to content analysis, one of the qualitative research methods and evaluated. Qualitative and quantitative data can be combined and interpreted in the discussion section (Creswell, 2017). In this sense, combining the qualitative and quantitative data of the study was realized in the discussion section and in that way, the research attempted to efficiently reflect the research process. Research questions played an effective role in conducting these procedures.

Results

Findings on the Quantitative Dimension of the Study

The results of paired sample t-test on the pre-test/post-test application are presented in the context of subscales and in tables. The results of the t-test conducted in the context of the 1st Subscale are presented in Table 3.

Table 3. Paired group t-test results of pre-test and post-test mean scores in the 1st subscale

Measurement (The 1 st Subscale)	<i>n</i>	\bar{X}	<i>S</i>	<i>sd</i>	<i>t</i>	<i>p</i>
Pre-test	24	2.99	.42	23	-10.61	.000*
Post-test	24	4.12	.35			

* $p < 0.01$

According to Table 3, there is a statistically significant difference between pre-test and post-test mean scores in the context of the 1st Subscale (Regarding Listening as Necessary) [$t_{(23)} = -10.61$, $p < 0.01$]. The mean score of the 1st subscale of students before the audiobook listening process was $\bar{X} = 2.99$ whereas this value increased to $\bar{X} = 4.12$ after the application. This finding may be evaluated in a way suggesting that audiobooks have an important impact on increasing the perception that listening is necessary in students. T-test results of the 2nd subscale are presented in Table 4.

Table 4. Paired group t-test results of pre-test and post-test mean scores in the 2nd subscale

Measurement (The 2 nd Subscale)	<i>n</i>	\bar{X}	<i>S</i>	<i>sd</i>	<i>t</i>	<i>p</i>
Pre-test	24	3.75	.43	23	7.54	.000*
Post-test	24	2.38	.64			

*p<0.01

According to Table 4, there is a statistically significant difference between pre-test and post-test mean scores in the context of the 2nd Subscale (Individual Differences in Listening) [$t(23)= 7.54$, $p<01$]. The mean score of the 2nd sub scale in students before the audiobook listening process was $\bar{X}=3.75$ whereas this value decreased to $\bar{X}=2.38$ after the application. This finding may be evaluated in a way suggesting that audiobooks have an important impact on eliminating individual differences in students with regard to listening. T-test results of the 3rd Subscale are presented in Table 5.

Table 5. Paired group t-test results of pre-test and post-test mean scores in the 3rd subscale

Measurement (The 3 rd Subscale)	<i>n</i>	\bar{X}	<i>S</i>	<i>sd</i>	<i>t</i>	<i>p</i>
Pre-test	24	3.63	.52	23	8.56	.000*
Post-test	24	2.08	.61			

*p<0.01

According to Table 5, there is a statistically significant difference between pre-test and post-test mean scores in the context of the 3rd Subscale (Listening Disabilities) [$t(23)= 8.56$, $p<.01$]. The mean scores of the 3rd subscale in students before the audiobook listening process was $\bar{X}=3.63$ whereas this value decreased to $\bar{X}=2.08$ after the application. This finding may be evaluated in a way suggesting that audiobooks have an important impact on reducing listening disabilities in students. T-test results of the 4th Subscale are presented in Table 6.

Table 6. Paired group t-test results of pre-test and post-test mean scores in the 4th subscale

Measurement (The 4 th Subscale)	<i>n</i>	\bar{X}	<i>S</i>	<i>sd</i>	<i>t</i>	<i>p</i>
Pre-test	24	2.65	.48	23	-8.26	.000*
Post-test	24	3.72	.65			

*p<0.01

According to Table 6, there is a statistically significant difference between pre-test and post-test mean scores in the context of the 4th Subscale (Effective Listening Habit) [$t(23)= 8.56$, $p<.01$]. The mean score of the 4th subscale of students before the audiobook listening process was $\bar{X}=2.65$ whereas this value increased to $\bar{X}=3.72$ after the application. This finding may be evaluated in a way suggesting that audiobooks have an important impact on providing students with the effective learning habit.

Findings on the Qualitative Dimension of the Study

In this section of the study, findings on data obtained from semi-structured interview from and student diaries that were subjected to content analysis are presented. In this sense, tables were put together in the context of themes and sub-themes and samples from participating students' opinions

were included in these tables. Theme and sub-theme pattern on the advantages of audiobooks is presented in Table 7.

Table 7. Table on theme/sub-theme pattern on the advantages of audiobooks

Sample Opinions	Participants	Sub-theme	Theme
We can listen to audiobooks even while roaming since they are easy to carry and can be listened anywhere [S5]. We can listen to audiobooks at any place. For example, I put on earphones before sleeping and listened to audiobooks in the process [S8]. When we get bored, we can listen to audiobooks at any place [S9]. I can eat, travel and even lie down while listening to audiobooks (S12).	[S2, S4, S5, S6, S8, S9, S10, S12, S15]	The capacity to listen to audiobooks at any place	
Audiobooks have had a profound impact on developing our imagination [S2]. The audiobooks I listened to do enriched my imagination [S5]. It is easier to dream of things while listening to audiobooks [S11]. When I listened to an audiobook, the path to my imagination opened and I could picture every second of the book [S14]. While listening to audiobooks, I could put myself in those heroes' shoes and I was excited to dream of things [S16].	[S2, S3, S5, S10, S11, S14, S16]	Enriching imagination	
I used the Internet to read books [S3]. I could say that I spent less time on social media since I listened to audiobooks at the time [S7]. Thanks to audiobooks, I used my time and Internet connection for something beneficial [S15].	[S3, S7, S8, S14, S15]	Beneficial Internet use	
Audiobooks were read really well, and they were relaxing. While listening to audiobooks, I mostly paid attention to the stress and intonation of words [S5]. I mostly paid attention to the word stress especially while listening to poetry [S9]. While listening to audiobooks, I realized that the voice actors read the text flawlessly and that they paid attention to intonation. I try to mimic the way the voice actors read the text [S13]. Audiobooks is beneficial for us to improve on our pronunciation [S16].	[S1, S5, S9, S13, S16]	Stress, intonation and pronunciation training	Advantage
Audiobooks are economical. Since audiobooks are not printed onto paper, trees do not need to be cut for their production [S3]. Audiobooks helped my friends with economic problems to have an easier access to books [S13]. It was nice to see that the book was offered to us using technology. In this way, I didn't have to pay for books [S14].	[S3, S13, S14]	Being economical	
When I listened to audiobooks, I could put myself in my visually handicapped friends' shoes. I think that audiobooks could be remarkably advantageous for these people [S1]. I think that audiobooks will be much more beneficial for the visually handicapped and people with reading disorder. I think that all kinds of books may not be printed in a way that they could read; however, they can listen to audiobooks easily [S14].	[S1, S14]	Providing reading opportunities for disadvantaged individuals	

According to Table 7, the fact that audiobooks can be listened to at any place due to their portability was found to be the most referred advantage of audiobooks in the study [S2, S4, S5, S6, S8, S9, S10, S12, S15]. In addition, among the principal advantages of audiobooks stated by students

taking part in the study are enriching the imagination [S2, S3, S5, S10, S11, S14, S16], providing beneficial Internet use [S3, S7, S8, S14, S15], contributing to stress, intonation, and pronunciation [S1, S5, S9, S13, S16], being economical [S3, S13, S14], and providing reading opportunities for disadvantaged individuals [S1, S14]. In the research process, the research aimed to identify the advantages of audiobooks as much as their disadvantages. In this sense, after analyzing the data obtained from students, theme/sub-theme pattern on the disadvantages of audiobooks is presented in Table 8.

Table 8. Table on theme/sub-theme pattern on the disadvantages of audiobooks

Sample Opinions	Participants	Sub-theme	Theme
Listening to audiobooks is nice; however, it does not improve our reading speed. This is a disadvantage of audiobooks compared to printed books [S4]. Reading printed books increases our reading speed whereas it is not the case in audiobooks. Audiobooks do not have an impact on improving our reading speed [S9]. The drawback of audiobooks compared to printed books is that they do not contribute to our reading speed [S10]. Audiobooks contribute to our pronunciation; however, they do not contribute speed reading [S16].	[S4, S9, S10, S16]	Not improving the reading speed	
As 8th grade students, we are now studying for a central exam. While reading a book, I think that I am studying for the exam in terms of reading comprehension. Audiobooks do not have any contributions for exams [S3]. While reading a book, our reading speed increases. This would be very beneficial for us in exams. However, this is not the case in listening to audiobooks [S9]. In exams, there are questions on reading comprehension. The audiobooks that we listen to do not have any contributions for use to answer these questions. We can improve on this skill only if we read printed books [S13].	[S3, S9, S13]	Not serving for exams	
While listening to audiobooks, I was distracted after a certain period of time [S3]. I think I exaggerated this listening process a bit. When I listened to audiobooks for a long time, I got a headache and I could not focus [S8]. Listening to audiobooks requires concentration. I realized that I was, from time to time, distracted [S12].	[S3, S8, S12]	Attention deficit	
I listened to audiobooks on the social networking site. I exceeded the Internet quota because of this. I think this is a disadvantage [S1]. I had access to audiobooks through the social networking site. I think the Ministry of National Education should develop a free application for audiobooks and the Internet quota should not be used while listening to audiobooks [S15].	[S1, S15]	Exceeding the Internet quota	Disadvantage
My ears are a little sensitive. I felt a pain in my ear while listening to audiobooks using earphones. Therefore, I often listened to audiobooks when there was no one else in the room, and not putting on earphones [S6].	[S6]	Harmful impact of earphones on ears	
Audiobooks have some advantages; however, they also have disadvantages. For example, when I was listening to audiobooks, I realized that I got really bored, from time to time [S9].	[S9]	Getting bored	

According to Table 8, the students stated that audiobooks had also disadvantages, though not as many as their disadvantages. Accordingly, the fact that audiobooks do not improve reading speed is the most referred disadvantage of audiobooks stated by students taking part in the study [S4, S9, S10, S16]. Among these disadvantages are that audiobooks do not serve for exams [S3, S9, S13], they cause attention deficit [S3, S8, S12], and they cause Internet quota excess. In addition, a student [S6] stated that they felt pain in their ear while listening to audiobooks using earphones while another student [S9] stated that they sometimes got bored of listening to audiobooks.

During the research process, students listened to different genres of audiobooks: event-based (novels), thought-themed (essays), and poetry. In this way, the research attempted to identify how different genres of audiobooks had an impact on listening attitude of students. Findings on the content analysis of these genres are presented in Table 9.

Table 9. Table on theme/sub-theme aattern for audiobook genres

Sample Opinions	Participants	Sub-theme	Theme
I liked listening to novels more. The reason was that I felt like I was listening to a fairy tale while listening to novels. Novels as audiobooks sounded like a magic box to me [S2]. I was very happy while listening to novels in audiobook form. Because they were read really well [S4]. I liked listening to novels compared to other audiobook genres. The reason was that I felt like I experienced the events in the novel myself while listening to it [S8]. I liked listening to novels. Before listening to novels, I thought that I would get bored; however, when I started listening to them, I realized that I paid attention to them and was curious about what would happen next. I think each individual should listen to an audiobook at least once in their life [S13].	[S2, S4, S8, S10, S11, S13, S14]	Event-Themed Audiobook (Novel)	
I liked listening to poetry compared to other audiobook genres. Listening to poetry was relaxing for me and I felt like as if my soul was purified from all evil. I was feeling happy [S1]. I felt happy while listening to poetry because I am an emotional person. Emotions are best told through poetry [S5]. I liked poetry in audiobook form. Because I like to read, write, and listen to poetry [S9].	[S1, S5, S6, S9 S12, S15]	Poetry Themed Audiobook (Poetry)	Audiobook Genres
I liked listening to essays the most among these audiobooks. Because our teacher asked us to listen to Montaigne's Essays and these essays contributed a lot to my life [S3]. I liked all the audiobooks we listened to; however, I liked listening to essays the most because I learned a lot while listening to them [S7]. I liked listening to essays because I learned a lot in my free time [S16].	[S3, S7, S16]	Thought-Themed Audio Book (Essay)	

According to Table 9, students stated that they liked listening to event-themed audiobooks (novels) the most in the research process [S2, S4, S8, S10, S11, S13, S14]. The fact that event-based works were read well and that students felt as if they were in the novel were among the reasons. After event-themed books, poetry books were another audiobook genre that students liked listening to [S1, S5, S6, S9 S12, S15]. It was concluded that especially emotional students liked listening to poetry

books and they felt happy in the process. Thought-themed audiobooks (essays) was found to be the least favorite audiobook genre in the research process [S3, S7, S16]. It was concluded especially successful students who were eager to learn new things and could take life lessons from these essays liked listening to this audiobook genre. In this context, it can be said that characteristics of students have a great impact on liking and choosing among different audiobook genres.

Discussion, Conclusion and Recommendations

Listening is one of the most frequently used skills for the individual in daily life. The widespread use of technological devices such as tablets, smartphones and computers has brought a different dimension to listening skills and has made it obligatory to raise listening awareness in students in this regard. In the present study, the impact of audiobooks on listening attitude in students was analyzed. Moreover, student opinions on audiobook listening experience was analyzed.

According to quantitative findings in the study, the audiobook listening practice conducted in action research produced a statistically significant difference in the context of the subscales of "Listening Attitude Scale for Secondary School Students": "Regarding Listening as Necessary", "Individual Differences in Listening", "Listening Disabilities" and "Effective Learning Habit". According to these results, it can be said that audiobooks that students listened to in the research process had a positive impact on student perception on the necessity of listening. According to Marlow (2000), using appropriate material and content in listening training is the prerequisite of an effective learning habit. In this sense, in the current era, in which technological devices are intensively used, audiobooks lead to raise listening awareness in students in terms of seeing listening as a necessary activity.

In the present study, it was concluded that audiobooks had an important impact on eliminating individual differences in the listening process. Robertson (2004) underlines that individuals do not have sufficient listening efficiency and that necessary efforts should be exerted in this regard. In this framework, in the listening process, audiobooks render students mentally active and increase focusing and attention threshold; thereby increasing the efficiency of the listening process. In a study, Wagar (2016) concluded that audiobooks improve comprehension skills in students. It can be said that audiobooks support this argument in terms of making important contributions in eliminating individual differences at the comprehension level.

Listening is a versatile and complex process including many factors (Karakus-Taysi & Ozbay, 2016). Listening disability is an important factor having a negative impact on the process and that educators should focus on. Based on the findings obtained in the study, it was concluded that audiobooks had an active role in reducing learning disabilities in students. In a study, Turker (2019) concluded that audiobooks remarkably reduced reading anxiety in foreign students learning Turkish.

Accordingly, it can be said that audiobooks have a positive impact on overcoming problems faced in the listening process for students.

According to t-test conducted in the study, it was found that audiobooks have an important impact on providing an efficient listening habit for students. Different studies demonstrate that audiobooks contribute greatly to language learning process. Taguchi, Takayasu-Maass, and Gorsuch (2004) concluded that audiobooks made the learning process an enjoyable experience both at the visual and auditory level due to having multiple stimuli and Esteves and Whitten (2011) concluded that audiobooks contributed greatly to provide reading habits in students. According to Miller (2003), the prerequisite of an effective listening process is the active participation of the listener in the listening process. Audiobooks are electronic resources that require utmost and constant attention from the listener. With this aspect, audiobook should be used for educational purposes in providing and developing an efficient learning habit.

In the qualitative dimension of the study, themes on advantages, disadvantages, and genres of audiobooks were identified. According to these findings, students taking part in the study stated that the most important advantages of audiobooks were that they could be listened to at any place and they could enrich their imagination. In addition, among other advantages of audiobooks are that they provide beneficial Internet use, contributing to stress, intonation, and pronunciation training, being economical, and providing reading opportunities for disadvantaged individuals. According to Clark (2007), the most important feature of audiobooks is that they attract attention from students, and they offer flexibility for them in terms of time. According to Chen (2004), audiobooks should be used in developing listening skills as well as reading and speaking skills. The reason behind this is that audiobooks are versatile materials contributing to the development of linguistic skills as a whole.

When analyzed, findings on the disadvantages of audiobooks demonstrate that the most referred ones are that they do not improve reading speed and that they do not serve for exams. In addition, among other disadvantages of audiobooks stated by students taking part in the study are that they cause attention deficit, they cause Internet quota excess, earphones have a harmful impact on ears while listening to audiobooks and that students sometimes get bored in the process. In Turkey, listening skill is not included in central exams in the evaluation process. The application of measuring and evaluating listening skills in exams conducted in schools in mother-tongue training process is not sufficient (Carkit, 2018). This causes students to overlook acquisitions regarding this skill. In this sense, the inclusion of listening and speaking skills in the measurement and evaluation process in mother-tongue training as well as reading and writing skills is considered important in the development of these four core skills as a whole. The results obtained in this theme such as attention deficit, Internet quota excess, harmful impact of earphones on ears and boredom are not general

opinions of students taking part in the study. These opinions are individual opinions. However, these opinions are considered as important feedback in terms of the functional use of audiobooks.

In the research process, students listened to three audiobook genres: event-themed (novel), poetry, and thought-themed (essay). In this context, it was concluded that students liked listening to event-themed (novel) audiobooks the most. When analyzed, several previous studies (Diakidoy et al., 2005; Celebi, 2008; Katranci, 2012; Melanlioglu, 2013) demonstrate that students are more successful in listening to event-based listening texts. In this context, research results support findings in the literature. According to research results, it was concluded that emotional students liked and chose to listen to poetry in audiobook form whereas thought-themed audiobooks (essay) were the least favorite genre in the process. It was observed that successful students who were eager to learn new things and could take life lesson from essays liked and chose to listen to this audiobook genre. Accordingly, it can be said that characteristics of students have a great impact on liking and choosing among different audiobook genres.

Based on these research results, the following suggestions could be provided:

- Audiobooks cause a positive impact on listening attitude in students. In this sense, audiobooks should be used effectively in providing and developing learning skill. In this context, both classroom and Turkish teacher should be provided with necessary in-service training.
- The Ministry of National Education should develop a digital audiobook library in order to provide easy access to audiobooks for all students and this service should be free for students. To that end, "Education Information Network" could be used.
- In the current era, in which the digital transformation is rather rapid, the promotion of audiobooks should be conducted through public service announcements. In this way, students and families should be provided alternatives in terms of beneficial Internet use via technological devices.
- In Turkey, audiobooks should not be considered only as a practice conducted through amateur dubbing activities for visually handicapped individuals. On the contrary, they should be produced as a digital material conducted through professional dubbing activities that would offer reading opportunities for every individual at any time. In this sense, publishing houses should offer the digital audiobook version of more books in a professional manner.
- The impacts of audiobooks on linguistic and thinking skills could be studied and analyzed at every education level, from kindergarten to university.

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The Effect of Teaching with Slackline Exercises on Balance Skills Learning of University Students

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Abstract

This study aims to analyze the impact of slackline exercises on the balance skills of university student on their learning. Twenty university student kickboxers voluntarily attended the study (8 women and 12 men). They were randomly divided into two groups (each group four females and six males) as the experimental group (EG) and the control group (CG), each consisting of 10 subjects. CG only followed regular training, while EG applied supervised slackline exercises for two days a week and 10 min sessions in addition to regular training for 4-week. Some tests were done before and after slackline exercises in the evaluation of all participants: counter movement jump, standing long jump, leg strength test, back strength test, static balance test “Stork Stand Balance” (SST) and dynamic balance test. According to the post-test results, the SST values which are the static balance test of EG were significantly higher than the CG. As a result, if slackline exercises, which are organized in addition to the regular training sessions specific to the branch, are applied in more extended periods, it can contribute to the balance skill learning and the balance necessary for performing technical movement.

Keywords: balance teaching, physical education, athlete student, slackline

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Introduction

Combat sports involve dynamic and high-density intermittent activities that require complex skills and tactical perfection. In these sports, successful performance is determined by powerful actions that are performed in unpredictable situations. (Matsushigue et al., 2009; Silva et al., 2011). Kickboxing is a mix of martial arts based on barefoot kicking like karate and punching like boxing. During the fight, the goal is to use power, sports-specific skills, and endurance to prevail physically (Streissguth, 2008).

In recent years, the Ministry of National Education has encouraged students to participate in physical and sports activities in schools. Because mental health is known to be related to physical fitness (Ozkara, et al., 2016). As in all sports branches at universities, students are very interested in combat sports.

A formal fight consists of three rounds of two minutes each and one-minute rest between rounds. As in many martial arts, kickboxing athletes' work done depends on both aerobic and anaerobic power (Buse, 2009). In a fight, kickboxing athletes' average cardiovascular responses, lactate levels, and perceived effort rates gradually increase from round one to the end. As a result, there is a significant decrease in concentric quadriceps strength, hamstring strength, hamstring-quadriceps strength ratio, and kicks and punches towards advancing rounds. (Salci, 2015)

During the fight, kickboxer tries to dominate by using the kicking and punching techniques thanks to his robust conditional features, and by developing the best tactics against the opponent by considering his weaknesses thanks to his superior characteristics. A sweeping technique, one of the critical techniques, is used to disrupt the balance of the opponent by reducing the resistance of the opponent for a good attack. The opponent's balance should be observed well. The opponents try to create a good kick or punch opportunity by unbalancing each other. Accordingly, fighters must have an extensive movement repertoire to take a good balance position after a move that will overbalance them. They should possess an excellent balance capability in both offensive and defensive actions (O'Keefe, 2005).

Postural control or balance can be defined as maintaining a support base with statically minimal motion and the ability to accomplish a task while keeping a dynamically steady position (Winter et al., 1990). Factors concerning balance involve sensory information and coordination from somato-sensorial, visual and vestibular systems, joint motion range and motor reactions that affect strength. (Grigg, 1994; Palmieri et al., 2002). While considerable studies are demonstrating the relationship between balance and postural control and athletes' risk of disability (Hrysomallis, 2007), the relationship with the performance is unclear (Hrysomallis, 2011).

According to the characteristics of sports branches, athletes (such as gymnasts) have superior balance skills in some branches, which has been put forward in the meta-analyses examining previous studies. Also, studies have been conducted examining athletes' balance skills with regards to competition levels and experience levels. In studies examining the relationship between athletes' balance skills and performance in different branches, it has been stated that elite athletes have higher equilibrium skills than the lower elites and achieve better results in branch-specific performance. (Hrysomallis, 2011)

Specialized balance training is effective for the recovery of postural and neuromuscular control of athletes. (Zech, et al., 2010). Slacklining, a kind of fun activity, has recently developed into a vital balance training that enhances balance and power performance. Slackline consists of a mechanism in which a durable band made of polyester material with a width of 2.5-5 cm, and a length of 6-20 m is tightly stretched between two solid poles fixed on the ground. It is then adjusted at a height and tension that will not touch the ground due to the stretch that occurs when the band is climbed on. In slacklining exercises, movements such as standing, walking, jumping, and turning on the band need an excellent postural balance, core body strength, and focus when performing with one foot and both foot. Since it gives a small unstable support base and produces very fast medio-lateral perturbations to the body, slacklining provides very high motion variability. (Pfusterschmied et al., 2013; Donath et al., 2017; Kosmalla et al., 2018; Fernandez et al., 2019). Besides, slackline exercises were further improved, and the opportunity to train with an interactive method projected on the screen with computer software was developed (Kosmalla et al., 2018).

A meta-analysis study of slackline workouts shows the significant task-specific exercise effects of slackline practices, which are most closely related to training content such as slackline standing time and dynamic stance balance in balance performance tasks. In these studies, it has been stated that transfer effects on static and dynamic posture balance performance tasks are limited (Donath, et al., 2017).

In the current literature information, it has been found that slackline training has led to improvements in studies specific to slackline. Still, there is no definite conclusion about the effects of this improvement on balance ability. This study aimed to examine the effect of additional slackline training on balance performances applied by university student elite kickboxers for four weeks.

Method

Participants

A total of twenty students, including a university student kickboxer 10 athlete experimental group (EG) and 10 athlete control group (CG), participated in the study. The average of age, height, year of experience, dominant foot and gender distributions are given in Table 1, (respectively: $22.10 \pm$

2.03 - 21.90 ± 2.38 yrs, 171.90 ± 7.58 - 172.40 ± 9.66 cm, 7.50 ± 5.50 - 6.90 ± 3.00 yrs., right/left: 9/1 - 8/2 and female/male: 4/6 - 4/6). The study was conducted following the Declaration of Helsinki and was authorized by the Muğla Sıtkı Koçman University Ethics Committee. All participants were notified of the potential risks and ailments of the testing procedures and informed in written and gave consent to participate in the study.

Table 1. Participants' demographics and baseline characteristics. (mean±sd)

Demographics	EG (n=10)	CG (n=10)
Age (years)	22.10±2.03	21.90±2.38
Body height (cm)	171.90±7,58	172.40±9.66
Experience (years)	7.50±5.50	6.90±3.00
Dominant foot-hand (right/left)	9/1	8/2
Sex (female/male)	4/6	4/6

EG: experimental group, CG: control group

Experimental design

In this study, a random parallel group design was adopted. Participants were randomly assigned to the experimental (EG) and control (CG) group. While both groups performed their planned kickboxing lesson for four weeks, the EG group additionally practiced “slackline” exercises for two days and 10 minutes a week (see slackline education protocol). They applied static and dynamic balance tests before (pre-test) and after (post-test), leg strength, back strength, Counter Movement Jump and Standing Long Jump tests (see testing procedures).

Slackline training protocol

Both groups applied the planned kickboxing training five days a week. The experimental group also (EG) performed slackline exercises for 10 minutes, two consecutive days a week, for four weeks. While the EG was training slackline, the control group (CG) continued their kickboxing training during this period. Slackline training was designed as a part of routine kickboxing training and implemented to the experimental group. In a suitable part of the kickboxing training hall in school, slackline, a 5 cm wide and 10 m long polyester material woven tape, which is mounted on two walls with a distance of 10 m, at the height of 50 cm from the ground, is stretched by attaching to solid hooks. The slackline was adjusted to the tightness of at least 25 cm high above the ground when stepped on. The floor is covered with soft floor cushions to be safe against the risk of falling.

Education program applied to the experimental group

After the subjects were offered the required prior knowledge about the slackline, they were divided into pairs and started the exercises with an instructor.

Week 1: Slackline exercises; standing on the band, stepping forward, and backward exercises were done as paired and fully assisted.

Week 2: Stepping forward and backward and semi-assisted walking exercises were done on the band as paired and semi-assisted.

Week 3: Walking, turning, kneeling, standing up, raising feet, punching and kneeling hitting exercises were done as paired and assisted.

Week 4: Unassisted walking and kicking on the band, kneeling exercises, and exercises to resist the small blows that would disturb the balance on the band were done.

Testing procedures

Leg Strength Test (LST). The chain length on the dynamometer was adjusted so that the players squatted over the dynamometer with their knees flexed at approximately 30°.

Back Strength Test (BST). Their legs were straight and their back was flexed to allow the bar to be at the level of the patella. A back dynamometer (Takei, Tokyo, Japan) was used in the two tests. The tests were repeated twice, and the best score was retained (in kg) (Ten Hoor et al., 2016; Nikolaidis et al., 2014; Skinner, 2005).

Counter Movement Jump (CMJ). The participant jumped vertically as high as possible using both arms and legs to assist in projecting the body upwards. The jumping height was determined by subtracting stand reach height from jumping reach height. The test was repeated twice, and the best score was retained (in cm) (Castro-Pinero, et al., 2009).

Standing Long Jump (SLJ). The participant stood behind the starting line, with feet together, and pushed off vigorously and jumped forward as far as possible. The distance is measured from the take-off line to the point where the back of the heel nearest to the take-off line lands on the mat or non slippery floor. The test was repeated twice, and the best score was retained (in cm) (Castro-Pinero et al., 2009).

Static Balance Test “Stork Stand Balance” (SST). Static balance was assessed using the Stork stand balance (SST) protocol. To perform the Stork stand test, participants stood with their opposite foot against the inside of the supporting knee, and both hands on his hips. On the command, the subject raised the heel of their foot from the floor and attempted to maintain their balance as long as possible. The trial ended if the subject moved his hands from his hips, the ball of the dominant foot moved from its original position, or if the heel touched the floor. This test was carried out on the dominant and non-dominant leg acting as the standing leg. The test was timed (in seconds) using a stopwatch. The total time was recorded in seconds. The score was the best of 3 attempts. (Chaouachi et al., 2014; Hammami et al., 2016; Makhoul et al., 2018)

Dynamic Balance Test (DBT). Dynamic balance ability was measured by [Prokin Tecno Body, PKW 200 PL, Italy]. TechnoBody PK200WL (Prokin Tecno Body, PKW 200 PL, Italy)

computerized balance device was used for dynamic balance assessment (<http://www.tecnobody.it>). The subject's barefoot was placed on the balance platform in a standardized position (the maximum point of the medial longitudinal arch was projected on the x-axis and the distance between feet was 8 cm). The test comprises trying to move in a reference circle seen on the computer screen which provides continuous visual feedback to understand the difference between what he/she was feeling on a kinaesthetic level and what is actually happening at motor level (Fousekis et al., 2012).

Dynamic balance on the right foot (RF), on the left foot (LF) and on bipedal stance (BS) were tested with open eyes separately for 30-s and medium mode was used. Test was conducted twice for each participant. The rest duration for each measurement was 60 second. Test results included 5 parameters that Perimeter Length (PL) was used to evaluate the dynamic balance skills of the athletes. (PL: The total degrees came about during the test time). All measurements were performed in lab by the same expert.

Statistical Analyses

Data are presented as mean and standard deviation. The normality test (Kolmogorov-Smirnov) was applied to the data of all variables as a result of the tests (pre-post test) applied by both groups (experimental-control group). In-group and inter-groups comparison tests (paired-sample t-test) of some motoric tests and balance tests applied to the experimental and control groups before and after 4-weeks were completed. The significance level was set at $p < .05$. SPSS (version 22.0) was used in all analyzes. Finally, effect size (Cohen's d) was also assessed (small $< .50$; moderate $.50$ - $.79$; large $\geq .80$). (Cohen, 1988).

Results

As a result of the tests, a significant difference was observed between the EG and CG post-test values in the balance values of the right foot and left foot in the stork balance test (SBT), which is the static balance test ($p < .05$).

SST post-test averages of EG were higher than CG post-test values for right foot (RF) and left foot (LF) (respectively: SST-RFpost EG = 13.10 ± 3.14 ; CG = 10.00 ± 2.58 . SST-LFpost EG = 13.70 ± 3.71 ; CG = 10.50 ± 2.92), ($p < .05$). The effect size for both was found to be large (RF- $d = 1.08$, LF- $d = .96$).

As a result of dynamic balance tests for both groups, the difference between the mean pre-test and post-test values of double feet, right, and left foot PL was not significant. Although not significant, an improvement was observed in the dynamic balance skill of both groups, and a setback was seen in dynamic balance skill in the right foot. There was no significant difference between the dynamic balance post-test values between the groups ($p < 0.05$) (Table 2 and 3).

Table 2 Comparison of balance skills and motor skills pre-test and post-test results within groups

Variables	Tests	EG (n=10)				CG (n=10)			
		Mean±Sd	t	p	ES	Mean±Sd	t	p	ES
Body mass (kg)	Pre	65.71 ± 11.58	.19	.85	.08	65.20 ± 11.05	-.14	.89	.06
	Post	64.73 ± 11.95			small	65.90 ± 11.34			small
Leg strength (kg.m)	Pre	96.30 ± 29.32	-.15	.88	.07	90.45 ± 35.86	-.03	.97	.02
	Post	98.40 ± 34.06			small	91.00 ± 38.99			small
Back strength (kg.m)	Pre	109.30 ± 38.73	-.09	.93	.04	94.30 ± 31.98	-.03	.98	.01
	Post	110.75 ± 33.64			small	94.70 ± 31.07			small
Vertical jump (cm)	Pre	39.60 ± 10.35	-	.94	.04	36.90 ± 10.34	-.71	.49	.32
	Post	40.00 ± 11.54	0.08		small	39.90 ± 8.45			small
Standing long jump (cm)	Pre	211.60 ± 35.35	-	.74	.15	196.90 ± 36.11	-.31	.76	.14
	Post	216.80 ± 33.46	.034		small	202.00 ± 36.72			small
Stork Balance Test Right foot (sec)	Pre	10.50 ± 3.21	-	.08	.82	8.60 ± 2.59	-1.21	.24	.54
	Post	13.10 ± 3.14	1.83		large	10.00 ± 2.58			mid
Stork Balance Test Left Foot (sec)	Pre	11.90 ± 4.18	-	.32	.46	9.10 ± 2.23	-1.21	.24	.54
	Post	13.70 ± 3.71	1.02		small	10.50 ± 2.92			mid
Bipedal Balance Test (PL)	Pre	470.12±77.83	.67	.51	.30	450.20±106.33	.23	.82	.10
	Post	446.59±78.78			small	439.40±106.15			small
Right Foot Balance Test (PL)	Pre	487.89±157.95	-.26	.80	.12	435.32±167.23	-.51	.62	.23
	Post	504.93±137.32			small	473.76±172.60			small
Left Foot Balance Test (PL)	Pre	467.80±107.04	.53	.42	.37	504.71±191.97	.79	.44	.35
	Post	425.62±121.30			small	446.81±128.91			small

EG: experimental group, CG: control group, ES: effect size-Cohen's d, PL: Perimeter Length, *p<.05

Table 3 Comparison of balance skills and motor skills pre-test and post-test results between groups

Dependent Variables	Tests	Between Groups		
		t	p	ES
Body mass (kg)	Pre	.10	.92	.05 small
	Post	-.23	.83	.10 small
Leg strength (kg.m)	Pre	.40	.69	.07 small
	Post	.46	.66	.23 small
Back strength (kg.m)	Pre	.94	.36	.42 small
	Post	1.11	.28	.50 mid
Vertical jump (cm)	Pre	.58	.57	.26 small
	Post	.02	.98	.01 small
Standing long jump (cm)	Pre	.92	.37	.41 small
	Post	.94	.36	.42 small
Stork Balance Test Right foot (sec)	Pre	1.46	.16	.65 mid
	Post	2.41*	.027	1.08 large
Stork Balance Test Left Foot (sec)	Pre	1.87	.08	.83 large
	Post	2.14*	.046	.96 large
Bipedal Balance Test (PL)	Pre	.48	.64	.21 small
	Post	.17	.87	.08 small
Right Foot Balance Test (PL)	Pre	.72	.48	.32 small
	Post	.45	.66	.20 small
Left Foot Balance Test (PL)	Pre	-.53	.60	.24 small
	Post	-.38	.71	.17 small

EG: experimental group, CG: control group, ES: effect size-Cohen's d, PL: Perimeter Length, *p<.05.

In addition to balance skills, when skills such as leg and back strength of slackline exercises, Counter movement jump, and long jump are examined, there was no significant difference between

the pre-test and post-test averages of the groups and within-groups ($p < .05$). However, we see an improvement in these skills, as the post-test averages are higher than the pre-test.

Discussion, Conclusion and Recommendations

While four-week slackline exercises applied in addition to classical training did not significantly affect the dynamic balance skill advancement of EG in the balance skill training of university athletes, it significantly enhanced their static balance skills. With the effect of classical and additional training, both groups advanced their leg and back strength, counter movement jump and long jump skills, double-foot, and left foot dynamic balance skills, although not significantly.

By using devices such as bosu ball, trampoline, duradisc, and balance board, balance skills have been trained and improved (Kidgell, 2007). The application of slackline exercises, which are regarded as a new exercise technique to enhance balance skills, is increasing day by day.

In the meta-analysis study, Donath et al. (2017) examined the research on the effect of slackline exercises on balance performance and he reported that slackline exercises mainly produced significant task-specific training effects in balance performance tasks, mostly related to training content such as slackline standing time and dynamic standing balance and that their transfer to static and dynamic standing balance performance tasks was limited. They suggested that slackline training should be included in combined training programs and not used as a single balance training form.

The studies concerning the effect of slackline exercises on balance, focus on three essential points. These are the effects of dynamic balance, static balance, and balance development associated with task-specific slackline exercises.

Giboin et al. (2015) reported a significant improvement in standing and dynamic balance performance on slackline only compared to static balance performance. It can be stated that these results are compatible with the "task-specific principle" of neuromuscular adaptations highlighted after balance training. The results of this research emphasize that slackline type exercises can be limited to transferring and generalization to other balance tasks. In a similar study, Naumann et al. (2015) stated that while game-based balance training showed significant improvements in task-specific balance skills, this balance skill did not have a significant effect on transferring to other balance tasks and reducing postural oscillation.

Related studies show unclear results concerning the transfer of the development in task-specific balance skills to other balance skills. It is emphasized that the effect of trained balance skill on task-specific balanced development can be explained by the "postural synergy" paradigm. This concept is described by the functional connection of the muscles associated with the task-specific neuromuscular requirements resulting from the repetition of movements for rapid postural responses (Kümmel et al., 2016; Donath et al., 2017).

In addition to studies showing improvements in the development of static one-leg balance as a result of slackline exercises (Santos et al., 2014; Thomas & Kalicinski, 2016), studies are also emphasizing that there is no significant effect (Granacher et al., 2010; Donath et al., 2013; Donath et al., 2016).

There are a limited number of studies on athletic groups. Santos et al. (2016) stated that six weeks of slackline exercises of young female basketball players had significant effects on the improvement of postural control (CoP) parameters and counter movement jump performances. Fernández-Rio et al. (2019) reported that young male football players underwent significant improvement in postural control (CoP) parameters and acceleration, agility, squat jump, and counter movement jump performances after six weeks of slackline exercises.

When the studies on athletes are considered, we observe that slackline training is performed in addition to the classical training sessions specific to the branch. Likewise, our study was conducted with an additional training model. Still, improvement in motor skills other than balance did not reveal any significant diversity in previous studies conducted in groups of athletes in the literature. Also, there was no significant difference in dynamic balance parameters. Although not significant, when the pre-test and post-test values are examined, there is an improvement in both balance and CMJ, SLJ, LS, and BS values. Except for the static balance test SBT-RF and LF, we cannot assume that this improvement is due to the slackline exercises. In previous studies, slackline exercises were followed for six weeks and 5-9 minutes three times a week. The duration and intensity of slackline training in our study seem to be less.

Consequently, if slackline exercises are performed in addition to the main training plans in various sports, they will have a positive effect on the ' balance performance of athletes. Slackline exercises combined with branch-specific movements can provide benefits such as comfortable application of branch-specific technical movements and protection from injury, with the effect of developing postural control after motor learning and neuromuscular adaptation. Trainers and athletes can adapt slackline exercises in addition to their training programs to contribute to their training.

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Logical Thinking Levels of Teacher Candidates

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Abstract

Logical thinking is a thinking that reveals the right thinking by having the ability to use various concepts with their meanings, to make inferences by making suggestions and to make reasoning by focusing on problem solving. A study is planned to show where this type of thinking is among other types of thinking and what level it is in individuals. In the research, it was aimed to determine the level of logical thinking in students. For this purpose, the working group has been determined. In order to determine the level of logical thinking in the study, the Logical Thinking Scale (MDI) developed by the researcher was applied to 525 students in total at Atatürk University Kazım Karabekir Education Faculty. The relationship between the personal information form and the total scores obtained from the scale was examined. In this application, gender, department (to see the difference between numerical and verbal-weighted sections) and book reading frequency (to see if reasoning skills improve with reading frequency) are discussed. As a result of the study, it was found that students who read books every day have higher logical thinking levels. Students who study in Education Sciences and Turkish and Social Sciences Education have higher logical thinking levels than students studying in other departments.

Keywords: Thinking; logical thinking; teacher candidates; logic; education

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Introduction

There is no certainty in the literature about what logical thinking is. For this reason, there are many definitions related to logical thinking. Indeed, according to Inhelder and Piaget, logical thinking is the mental operations used by individuals when certain problems are encountered. According to him, logical thinking reaches its main point in the period of concrete operations (7-11 years) and abstract operations (11-18 years) (Inhelder and Piaget, 1958). According to Lawson (1992), logical thinking is thinking that leads to conclusion by thinking resolutely. According to him, sequential thinking is the basis of logical thinking. Consecutive thinking is to take all the ideas and put them in order in a row. In addition, logical thinking is an important factor for conceptual learning as it requires logical thinking processes in terms of the constructivist process that creates conceptual knowledge in developing logical thinking ability. According to Demirel (2003), logical thinking includes finding scientific solutions to problems, classifying, generalizing, calculating, producing hypotheses and using numbers effectively by understanding the differences between concepts. Logical thinking, which is accepted as a universal human feature, involves high cognitive skill. To put it more clearly, the level of logical thinking provides us with information about the individual's level of cognitive development.

According to Yaman (2005), logical thinking involves an individual's reaching various principles and laws with some abstractions and generalizations, or solving a problem by doing various mental operations. According to Bektaşlı (2006), logical thinking is more of an intellectual skill used to solve problems. At this point, logical thinking refers to the skills such as effective use of numbers, showing the analysis relations between concepts, categorizing, generalizing, establishing and analyzing hypotheses, calculating with mathematical formula. So logical thinking is seen as the key to mental reservation and complex problem solving processes. In other words, logical thinking is part of the problem solving skill. In other words, logical thinking is one of the sub-stages of problem solving. Therefore, people with logical thinking and reasoning abilities can solve complex problems. The development of logical thinking, evaluation and inquiry processes takes place during problem solving teaching. Logical thinking is one of the ways to get advanced mental activities. Thus, these ability goals depend on the level of knowledge and understanding of the cognitive domains and are an application-level activity. Logical thinking is used to evaluate ideas, knowledge and experiences (Korkmaz, 2002).

As can be understood from these definitions, logical thinking is a type of thinking that enables problem solving, making conceptual analyzes, using reasoning paths, recognizing abstract structures, distinguishing the relationship between the two situations, and making logical decisions by making various comparisons and inferences. It is important how much this type of thinking is in humans. Because this type of thinking also affects the person's relationship with himself and his environment. Also logical thinking shows similar and different points with other types of thinking. The most

commonly used types of thinking that are related to logical thinking are critical, creative, systematic, reflective and analytical thinking.

Critical thinking is based on some criteria and methods such as “clarity, consistency, rationality, skepticism and correct reasoning on any subject, fact and idea; It is a thinking that recognizes inaccurate thinking styles, gives importance to evidence and results, exhibits a research-based deeper thinking disposition, attitude and skill, thus aiming to reach not only any result but consistent, reasonable conclusions and judgments. However, as can be seen here, while the difference of critical thinking from logical thinking is logical thinking, acting on correct thinking, a structure that recognizes inaccurate thinking styles and attaches importance to evidence and results in critical thinking. However, due to its logic structure, it is a field that gives knowledge of correct thinking rules and forms and the laws of thinking (Özlem, 2004).

Creative thinking process includes rational and logical thinking and scientific approach at every stage. But in addition to this, what is essential in creative thinking, which is also referred to as a mental thinking activity, a thinking act; At the end of the process, it is not to come up with a creative product or solution. The important thing is to present and apply this process actively in all areas of life (Koray, 2003). Although creative thinking has a logical direction, it is often confused with logical thinking. When looking at the distinctions at this point, creative thinking; It carries a new and original structure. It generates ideas as well as being the source of change. While doing this, it shows features that are difficult to accept. That's why it's hard to accept. It uses abilities rather than using habitual ways of thinking. It also reveals a way of thinking that extends to the future by including creative thinking, emotions, values, attitudes, intuition and assumptions. Logical thinking is more based on knowledge. As it uses experiences, it has an acceptable side in a short time and is an extension of the past. However, logical thinking has qualifications such as good - bad, right - wrong. There are logic rules that establish logical and causal connections. Therefore, it shows features suitable for mathematical and scientific thinking. Therefore, it has different points from creative thinking (Rawlinson, 1995).

In systematic thinking, it is essential to reach the unknown based on the known and to clarify it with logical operations. From this point of view, it is seen that systematic thinking has an effect on logical thinking. If a system is a whole composed of parts that are related to each other, consistency is the state of mutual connection or harmony between parts of a logical whole. Or it is the absence of contradictions. So, one implication is that the premises are in harmony without contradicting each other (Çüçen, 2013). As can be seen, systematic thinking and logical thinking are two types of thinking that must act with each other. But logical thinking does not only require systematic thinking. That is why the points of departure are formed in this regard.

Reflective thinking is “questioning what the person did during the action, rethinking what he did later, and arranging his general knowledge accordingly” (Durdukoca & Demir, 2012, p. 358). Reflective thinking is a research process based on solving the encountered problem. Looking at these dimensions, similar and different points of logical thinking and reflective thinking are seen. There is also problem solving in logical thinking. It's logical thinking, using numbers effectively, showing the analysis relationships between concepts, categorizing, generalizing, constructing and analyzing hypotheses, and calculating with mathematical formulas (Bektasli, 2006). But problem solving remains only at this level, beliefs and feelings are not involved, as in reflective thinking.

Finally, analytical thinking includes separating the object from its content, the tendency to focus on the properties of the object by categorizing it, and it is the preference of using rules to explain and predict the behavior of objects. That is, analytical thinking refers to examining the object alone and thinking by categorizing it. In logical thinking, people with this feature are more successful in reaching their goals, taking advantage of opportunities in a complex world and coping with difficulties (Koray, 2003).

It is necessary to show the level of logical thinking, which is very important in order to see the level of reasoning, whether the concepts used are used in their own sense, and whether the correct thinking style is established in individuals. For this purpose, a study was created and in the light of this purpose, answers to the following questions were sought:

1. Do the pre-service teachers' logical thinking levels differ significantly by gender?
2. Do the pre-service teachers' logical thinking levels differ significantly according to the department?
3. Do the pre-service teachers' logical thinking levels differ according to the frequency of reading books?

Method

Model of the Research

In the study, it was aimed to examine the logical thinking levels of students studying at Kazım Karabekir Education Faculty of Erzurum Atatürk University in terms of gender, age, department, frequency of reading books. For this, relational scanning model, which is one of the general scanning models based on quantitative data, was used. There is a relational screening model, the relationship between two or more variables and the existence of the change between these variables (Büyüköztürk, Çakmak, Akgün, Karadeniz & Demirel, 2015; Karasar, 2005).

Working Group

The research was carried out on 575 students randomly selected from the students attending Kazım Karabekir Education Faculty in 2018-2019 academic year. The study group was organized in 7 departments of Atatürk Kazım Karabekir Education Faculty (Physical Education and Sports Department, Educational Sciences Department, Fine Arts Education Department, Mathematics and Science Education Department, Basic Education Department, Turkish and Social Sciences Education Department and Foreign Language Education. Department) consists of students studying. A total of 525 students, 75 students from each department, were included in the study group. 312 of 575 students are female and 213 are male.

Data Collection Tools

In the research, “Logical Thinking Scale” and personal information form were used as data collection tools.

Logical Thinking Scale: It is a likert type scale consisting of 25 items and 4 dimensions (Reasoning, Language-Meaning, DTG and Concept) developed by the researcher. In the reasoning dimension of the scale, there are items about various inferential reasoning principles and methods of reasoning. In the language-meaning dimension, there are items related to polymorphism and uncertainty, while the DTG dimension includes items related to accuracy, consistency and validity. The concept dimension includes items that give concept types and relationships between concepts.

Construct validity was examined for the validity of the scale. The validity of the scale was tested using both exploratory and confirmatory factor analysis. To determine the construct validity of the scale, AFA was performed using promax rotation and principal components analysis. As a result of the exploratory factor analysis application, 27 items was removed from the scale. It was seen that the remaining 25 items in the scale were collected in 4 sub-factors with eigenvalue greater than 1. The variance explained by these 4 factors regarding the scale is 52.85%.

Confirmatory factor analysis was performed to test the conformity of the factors determined by exploratory factor analysis to the factor structures determined by the hypothesis, that is, to verify the structure found.

Table 1: Goodness of fit indices of the dfa model

Goodness of fit indices of the DFA model	
df value	2.69
X ²	618,48
RMSEA	,07
CFI	,95
NFI	,95
SRMR	,06
GFI	,90
AGFI	,90

Cronbach alpha value was examined for the reliability of the scale. In order to determine whether the items of the scale serve the purpose of measuring the property to be measured, when the item analysis is examined, the Cronbach alpha value for the first sub factor of the scale, 83, the Cronbach alpha value for the second sub factor, 75, the Cronbach alpha value for the third sub factor, 74, the fourth sub The Cronbach alpha value for the factor was 71 and the Cronbach alpha value for all questions was 83.

In addition, the Personal Information Form developed by the researcher was also used to determine the individual, department, gender, age, class, number of siblings, number of friends and parental education levels of the individual, which are other independent variables of the scale.

Personal Information Form: In the "Personal Information Form" used in the research, options were created in the form of an upper guideline informing gender, age, chapter read and frequency of reading in order to collect information about students' personal information.

Data Analysis

Descriptive statistics were used to analyze the data. All statistical analyzes of the scores obtained from the scales were calculated on the computer using the SPSS 23 package program. For this, firstly, frequency, percentage, arithmetic mean and standard deviation were used from descriptive statistics. Later, in order to analyze other problems of the research, the available data were examined, parametric analysis techniques were used since the data were at least range scale, the independent variables whose effect was investigated on the dependent variable showed normal distribution and the variances were distributed equally (Seçer, 2015, p.77). Accordingly, "t" test was applied for independent groups in binary groups, and "One Way Variance Analysis" was applied in more than two groups. In cases where the difference was significant as a result of one-way analysis of variance, complementary post-hoc techniques were used to determine which groups this significant difference was among, and the Tukey test was applied because the variances were homogeneously distributed. This test was used to determine the difference between groups more clearly. In addition, simple linear regression analysis was carried out to determine whether the psychological well-being levels of the students constituting the study group predicted their gratitude and altruistic behavior levels. The margin of error was taken as ,001 for the significance control of the difference between the groups.

Findings and Interpretation

Findings and Interpretation Regarding Gender Variable

Below, the t-test result is tabulated and presented in independent groups conducted to reveal whether the levels of gratitude of university students differ according to gender.

Table 2. Averages, standard deviations and t-test results of pre-service teachers' logical thinking levels according to gender

Gender	n	\bar{x}	s	Sd	t	p
Girl	312	86,47	7,16	808	26,24	,000***
Boy	263	73,94	6,17			

**p<,001

As seen in Table 2, the logical thinking point average of the girls is 86.47, while the average score of the boys is 73.94. Whether this difference between the averages was significant was checked by t-test in independent groups and the difference between the averages was found to be significant ($t_{808} = 26.24$; $p < ,001$). This indicates that the logical thinking level of female students is higher than that of boys.

Findings and Interpretation Regarding the Department Variable

One-Way Variance Analysis (ANOVA) results, which were conducted to reveal whether the logical thinking levels of pre-service teachers differ according to the section variable read, are presented by tabulating.

Table 3. Numbers, arithmetic averages and standard deviations of teacher candidates' differentiation status according to the department level

Department	n	\bar{x}	s
Physical Education and Sports	75	79,69	8,79
Educational Sciences	75	83,51	10,05
Fine Arts Education	75	80,70	8,86
Mathematics and Science Education	75	80,10	9,15
Basic training	75	80,83	8,74
Turkish and Social Sciences Education Foreign	75	78,58	9,17
Languages Education	75	63,44	7,01
Total	525	80,95	9,04

When the numbers, averages, and standard deviations of the logical thinking levels of university students according to department were evaluated, it was found that the mean scores ($\bar{x} = 83.51$) of the students studying in the department of educational sciences were higher than the others. One-Way Variance Analysis was carried out to test whether this situation makes a significant difference or not, since there are more than one variable, the groups are unrelated, and the measurements of the dependent variable are at least equally spaced scale level.

Table 4. One-way analysis of variance (anova) results regarding the differentiation status of teacher candidates' logical thinking levels according to the department

Source of Variance	Total of Squares	sd	Average of Squares	F	p
Between groups	1313,99	4	328,50	3,96	,003**
In-groups	66761,12	805	82,93		
Total	68075,12	809			

**p<,01

As a result of the one-way analysis of variance, the obtained F value (3,961) shows that the logical thinking levels of students differ significantly according to department ($p < ,01$). Complementary post-hoc techniques were used to determine between which groups this significant difference was found and the Tukey test was applied since the variances were homogeneously distributed. The results are presented in Table 4.

Table 5. Tukey test results concerning the differentiation status of the university students' logical thinking levels according to the department

Department (i)	Department (j)	$\bar{x}_i - \bar{x}_j$	$Sh_{\bar{x}}$	p
Physical Education and Sports	Foreign Languages Education	-3,82*	1,06	,00
	Educational Sciences	1,21	,85	,75
	Fine Arts Education	-1,01	,94	,82
	Mathematics and Science Education	-,41	1,08	1,00
	Basic training	-1,14	1,11	,88
	Turkish and Social Sciences Education	-2,45	,64	,97
Educational Sciences	Physical Education and Sports	3,82*	1,06	,00
	Fine Arts Education	2,81*	,94	,00
	Mathematics and Science Education	3,41*	1,08	,00
	Foreign Languages Education	1,15	1,09	,02
	Turkish and Social Sciences Education	2,72	,98	,04
	Basic training	2,68	1,11	,11
Fine Arts Education	Physical Education and Sports	1,01	,94	,82
	Turkish and Social Sciences Education	-2,81	,94	,00
	Educational Sciences	-1,15	,97	,04
	Foreign Languages Education	,84	,91	,89
	Mathematics and Science Education	,60	,96	,93
	Basic training	-,13	1,00	1,00
Mathematics and Science Education	Physical Education and Sports	,41	1,08	,99
	Educational Sciences	-3,41	1,08	,04
	Fine Arts Education	-,60	,96	,97
	Basic training	,72658	1,13	,97
	Turkish and Social Sciences Education	-2,18	1,01	,94
	Foreign Languages Educat	,15	,85	,88
Basic training	Physical Education and Sports	1,14	1,11	,84
	Educational Sciences	1,87	1,12	,89
	Fine Arts Education	-2,68	1,11	,11
	Turkish and Social Sciences Education	,13	1,00	1,00
	Mathematics and Science Education	,73	1,13	,97
	Foreign Languages Educatio	,88	1,18	,85
Turkish and Social Sciences Education	Physical Education and Sports	3,41	1,40	,14
	Educational Sciences	5,63*	1,15	,00
	Basic training	4,34*	1,06	,00
	Foreign Languages Education	1,48	1,09	,75
	Mathematics and Science Education	4,72*	1,33	,00
	Fine Arts Education	3,17	1,12	,01
Foreign Languages Education	Physical Education and Sports	-1,30	1,48	,95
	Educational Sciences	,91	1,25	,97
	Fine Arts Education	-,38	1,16	,99
	Turkish and Social Sciences Education	-3,24	1,19	,07
	Basic training	-4,72*	1,33	,00
	Mathematics and Science Education	,84	1,25	,08

As seen in Table 5; When the distribution of the logical thinking levels of the students according to the department they are reading is compared to the Tukey test comparison is examined; There was a significant difference between the students studying in the Department of Physical Education and Sports and those studying in the Department of Foreign Language Education in favor of students studying in Physical Education and Sports ($p < , 05$). There was a significant difference in favor of students studying in Education Sciences ($p < , 05$) between students studying in Education Sciences and those studying in Physical Education and Sports, Fine Arts Education and Mathematics and Science Education. There was a significant difference between the students studying in the Department of Fine Arts Education and those studying in the Department of Turkish and Social Sciences Education in favor of students studying in the Department of Fine Arts Education ($p < , 05$). There was a significant difference in favor of students studying in the Turkish and Social Sciences Education section ($p < , 05$) between students studying in the Turkish and Social Sciences Education section and students studying in Education Sciences, Basic Education and Mathematics and Science Education. However, no significant difference was found among other departments ($p > , 05$). It is seen that the logical thinking level of the students studying in the departments with significant differences in their favor is high. Significant differences were found especially in the education sciences department and Turkish and social sciences education department. This shows that social areas are logical thinking oriented. In these areas, more social issues are addressed and it is predicted that the level of logical thinking is also high since it is thought that multi-dimensional thinking skill is higher.

Findings and Interpretation Regarding the Reading Frequency Variable

One-Way Variance Analysis (ANOVA) results, which were conducted to reveal whether the logical thinking levels of pre-service teachers differ according to the frequency of reading books, are presented by tabulating.

Table 6. Number, arithmetic mean and standard deviations of teacher candidates' logical thinking levels regarding differentiation status according to frequency of reading

Frequency of Reading	n	\bar{x}	s
Everyday	10	87,45	6,22
Once a week	43	51,37	5,23
Once in a month	127	71,04	4,86
Every 6 months	95	71,06	4,89
Once a year	158	71,25	5,27
No	142	23,83	5,20
Total	575	70,95	8,17

When the number, averages and standard deviations of university students according to the number of siblings of their gratitude level were evaluated, it was found that the students' mean scores ($x = 87.45$) were higher than the others. One-Way Variance Analysis was conducted to test whether this difference makes a significant difference and the result is presented in Table 7.

Table 7. One-way analysis of variance (anova) results regarding the differentiation status of pre-service teachers' logical thinking levels according to frequency of reading

Source of Variance	Total of Squares	sd	Average of Squares	F	p
Between groups	36812,85	5	7362,57	189,35	000***
In-groups	31262,27	804	38,88		
Total	68075,12	809			

**p<,001

As a result of the one-way analysis of variance, the obtained F value (189,350) shows that students' gratitude levels differ significantly according to the number of siblings ($p < ,001$). The Tukey test was applied to determine which significant difference between the groups was, and the results are presented in Table 8.

Table 8. Tukey test results concerning the differentiation status of pre-service teachers' logical thinking levels according to frequency of reading

Frequency of Reading (i)	Frequency of Reading (j)	$\bar{x}_i - \bar{x}_j$	$Sh_{\bar{x}}$	p
Everyday	Once a week	-13,92*	,80	,000
	Once in a month	-13,59*	,77	,000
	Every 6 months	-13,61*	,78	,000
	Once a year	-13,80*	,80	,000
	No	-26,38*	,86	,000
Once a week	Everyday	13,92	,80	,012
	Once in a month	,33*	,72	,000
	Every 6 months	,31	,73	,99
	Once a year	,13	,76	1,00
	No	-12,45*	,81	,000
Once in a month	Everyday	13,59	,77	,89
	Once a week	-,34	,72	,99
	Every 6 months	,023*	,70	,000
	Once a year	-,21*	,72	,000
	No	-12,80	,78	1,00
Every 6 months	Everyday	13,61	,78	,014
	Once a week	-,31	,73	,99
	Once in a month	,023	,69	1,00
	Once a year	-,19	,73	1,00
	No	-12,77*	,79	,000
Once a year	Everyday	13,80	,80	,015
	Once a week	-,13	,76	1,00
	Once in a month	,21	,72	1,00
	Every 6 months	,19	,73	1,00
	No	-12,58	,81	,045
No	Everyday	26,38	,86	,05
	Once a week	12,46	,81	,04
	Once in a month	12,79	,78	,08
	Every 6 months	12,77	,79	,047
	Once a year	12,58	,81	,022

As seen in Table 8; When the distribution of the logical thinking levels of the teacher candidates according to the frequency of reading books showing the Tukey test comparison is examined; There was a statistically significant difference between the students who read books every

day and once a week, once a month, once every 6 months, and those who read books every day and never read books ($p <, 001$). However, among students who read books once a week and those who read books once a month and those who never read books, in favor of students who read books once a week ($p <, 000$); In favor of students who read books once a month and students who read books once a month and once a year ($p <000$); A statistically significant difference was found between students who read books every 6 months and students who never read books in favor of students who read books every 6 months ($p <, 000$). It was observed that the logical thinking levels increased with the increase in the frequency of reading books. Because reading is thought to broaden the point of view, focus on problem solving and speed up reasoning. Therefore, it affects logical thinking.

Conclusion, Discussion and Suggestions

Findings regarding the gender variable reveal that students' logical thinking abilities differ statistically according to their gender. The results showed that the logical thinking skills of female students are higher than male students. Studies in the literature in which there is a significant difference between the logical thinking abilities of male and female students in terms of gender (DeLuca, 1981; Hernandez, Marek & Renner, 1984; Howe & Shayer, 1981; Shemesh, 1990; Aksu & Berberoğlu, 1991; BouJaoude and Giuliano, 1991). There are also studies with a significant difference in favor of girls (Kılıç & Sağlam, 2009; Demirtaş, 2011). Yenilmez, Sungur and Tekkaya's (2005) studies on "The Effect of Gender and Class Level on Students' Logical Thinking Skills" are proportional, probabilistic, combinatorial thinking, in favor of boys, and correlational thinking and control of variables are significant in favor of girls. Some studies also indicated that there was no significant difference between logical thinking abilities by gender (Valamides, 1996; Dimitrov, 1999; Koray & Azar, 2008; Al-Zoubi, El-shar'a and Al-Salam, 2009; Fah, 2009; Kıncaç & Deniz Yazgan, 2010; Piraksa, Srisawasdi and Koul, 2014). In this study, the reason for the significant difference in favor of girls, that is, the high level of logical thinking in girls, may be due to the high conceptual perception and reasoning skills of girls. Because they think more deeply and in detail, they also have the ability to make more inferences. At the same time, it can be said that because girls want to achieve more valid results, they attach importance to detailed thinking. Therefore, they are thought to have a high level of reasoning and logical thinking than men.

According to the section, it is concluded that the logical thinking level is higher in Educational Sciences and Turkish and Social Sciences Education. No supportive or contradictory studies on the subject were encountered. The reason for this is that the departments in the Faculty of Education are not considered as variable in other studies. When the data obtained as a result of this study are examined, it is seen that the logical thinking levels of the verbal-weighted sections are high. However, various studies related to logical thinking have been found to be numerical and it has been found that the logical thinking levels of numerical fields are higher. Considering the studies carried out at home

and abroad, there are many studies investigating the relationship between students' logical thinking abilities and science achievements. In these studies, it is concluded that logical thinking ability has an important role in science achievement and understanding of science concepts (Tobin and Capie, 1982; Garnett and Tobin, 1984; Lawson and Thompson, 1988; BouJaoude and Giuliano, 1991; Aksu, Berberoğlu and Paykoç 1991; Williams & Cavallo, 1995; Valanides, 1996; Johnson & Lawson, 1998; Tezcan & Bilgin, 2004; Atay, 2006; Lawson et al., 2007). Contrary to the studies mentioned, in this study, logical thinking level was observed to be more effective in social areas. As a reason, one's problem solving ability, meaning ability and communicative aspect can be thought to be effective. In connection with this, reading levels are assumed to be effective. For this reason, the frequency of reading books is another variable.

When the frequency of reading books is analyzed, there is a significant difference between the students who read books every day and those who read books once a year. This difference occurred in favor of readers every day. The reason for the high level of logical thinking among the students who read books every day is to evaluate the events from a different perspective, and to expand their vocabulary to find more comfortable in logical reasoning.

As a result, with this study, the logical thinking levels of the girls in terms of gender, students studying in Educational Sciences and Turkish and Social Sciences education in terms of the department studied, and those who read books every day according to the frequency of reading books are high.

If any suggestions are made for future studies; In this study, new studies can be done by increasing the data in the personal information form. Or instead of the logical thinking scale, logical thinking levels can be obtained with various data collection tools such as test and questionnaire. Or, if a more detailed view is desired besides a quantitative research, the level of logical thinking can be examined with qualitative studies. For example; The change of this level can be examined in detail by using qualitative data collection tools such as interview, observation. However, the working group can be expanded for lower or higher groups. Not only teacher candidates but also different age groups can be addressed. More comprehensive perspectives can be provided by carrying out studies with structures that are thought to affect the logical thinking level.

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Investigation of the Responses of Children to Animated Film that They View¹

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Abstract

Children spend an important part of their time watching animated films on different platforms (cinema, television, internet). Box office figures indicate that this is true at the global level. However, it is not known how children react momentarily to the animated films they watch, and how these reactions fit the content of the film viewed. The purpose of this study is to determine the accuracy level of children's responses to the content of the animated films that they view based on age, gender and different variables. The research was carried out with a mixed-method using both qualitative and quantitative methods. The study group consisted of 210 children between the ages of 3-9. An average of 30 children was included in each age group. In this way, it was aimed to examine the behaviour of the children in each age group while watching animated films, the way the content of the scenes affects the children during viewing, and the change that children undergo as age progresses. First, a film suitable for the research was selected and the film content was analysed on a scene and minute basis. The standard emotions to be given at every minute and scene were determined. Then Toy Story 3 film was shown to the children in the research group. During the viewing session, each child was recorded with a camera and the camera footage and film minutes were matched then. The children's reactions observed on the camera footage caught while they are watching the film were compared to the content of the animated film. In the meantime, the parents of the children in the research group were given a demographic evaluation form developed by the researcher. As a result of the research, age was found to be a determining factor in the accuracy of children's responses during movie viewing sessions. On the other hand, no significant difference was found between the groups based on gender. Other results are also included in the study.

Keywords: Child development, Animation, Media for Children

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Introduction

The development and progress of societies depend on raising healthy individuals. In particular, children are expected to make positive contributions to the development of society. As with all areas of development, children at preschool and primary school stage must have a healthy development in the psychosocial area. The importance of psychosocial development is once again understood when it is thought that it has recently been highly influenced by the media content that children are exposed. According to Gattino and Tartaglia (2015), the mass media has a strong role in shaping our beliefs, perceptions and collective feelings. Arnett (2007) emphasizes that research over the past 30 years has influenced gender role of repeated exposure to stereotyped judgments in television. Gökçearsan (2010) points out that exposing children to complex sexual role models in animations may negatively affect them in their future lives. Similarly, Klein and Shiffman (2006) argue that the attitudes and ideas of young audiences are exposed to negative media messages at childhood.

These effects of the media have been demonstrated in various areas. In different researchs, television, animations and their effects have been examined with different variables. For example, Robinson et al. (2008) argue that young people who see the relationship between body weight and popularity in the viewed content are more likely to have negative consequences. Besides, overweight teens may be sceptical of their ability to build social networking, friendships, and develop personal relationships. Viewing content including body image can be associated with low self-esteem and feelings of social confidence. Anschutz et al. (2010) conducted a study and tested the direct effect of watching programs idealizing thinness on body dissatisfaction among young girls (aged between 9-12). As a result of the study, it was revealed that only young girls aged 9-12 showed more dissatisfaction. After watching the program where thinness was idealized, they demanded a thinner body than the neutral program. In contrast to these findings, Calado et al. (2011) examined the relationship between exposure to mass media and satisfaction with the body by gender. As a result of the research, there was no clear relationship between satisfaction with body and exposure to mass media.

Considering that there might be a relationship between television viewing and gender roles, Rivadeneyra and Lebo (2008) examined the relationship between adolescents' television viewing and gender roles and flirting behaviours. The study was conducted on 215 ninth-grade students and found a relationship between watching romantic television programs and exhibiting traditional gender roles during flirting. On the other hand, it was also found that there was a relationship between watching non-romantic television dramas and thinking about television realistically and less traditional flirting behaviours. Watching soap operas has also been related to a younger age and a greater number of flirtations.

The impact of the children's Television Act, which was introduced in the United States in 1990, on children's viewing and learning experiences were investigated. The survey which was conducted on 631 children in 2-6 grade found that girls and younger children liked educational and informative television programmes more than others. Girls and older children had a better understanding of social programs in particular. Researchers emphasized that such laws improved social, emotional and cognitive well-being by making it easier for children to view quality programs (Calvert & Kotler, 2003). Monitoring educational programs (such as Sesame Street) was found to be positively correlated with social interaction and cooperative behaviour among children (Arnett, 2007).

Language development and watching cartoons is another area that has been subject to many pieces of research examining the effects of television and animation. In a study conducted on infants, Hudon, Fennell, and Hoftyzer (2013) examined the relationship between television viewing and language development of bilingual infants. While the amount of television viewing could not be correlated with language output, it was found that there was a significant relationship between low-quality television viewing and low vocabulary treasure. Wartella et al. (2010) claimed that 52% of families in general (who have children between 6 months and 6 years of age) think television prepares their children for learning at school. These families find watching baby videos acceptable because they find it safe and potentially educational. 80% of families find it important for babies to watch television to learn colours, shapes, reading skills, numbers, music, science and nature. In another study conducted on babies, Shimpi et al. (2013) pointed out that 18-24-month-old infants learned by observing completely unfamiliar strangers. In this respect, it was emphasized that the imitability of the content viewed in visual media was high. In a similar study, Williamson et al. (2013) emphasized that infants imitated social behaviours for social interaction and were able to practice them in appropriate situations. The study points out that the behaviours viewed on video are imitated by babies. According to Strouse and Troseth (2008), 24-month-old infants can repeat the behaviours they watch on video with a 24-hour delay as well as the behaviours they watch in the room they are in. Besides, according to this study, 24-month-old babies are significantly less likely to imitate what they watch on their home TV than what they watch in a laboratory environment.

According to, Anderson and Henson (2010) adult understanding of viewed content occurs only at the age of 13. Courage and Howe (2010) claim that small babies cannot perceive the content they watch as it is, but are influenced by their formal characteristics. By the time they reach the age of two, they can understand the content that fits with their cognitive levels and interests them. However, they prefer to build relationships with people and learn from them. Besides, watching television does not lead to Attention Deficit-Hyperactivity Disorder, but it can have negative consequences such as poor administrative function when watched over 7 hours a day and when content is not suitable for the child. From a similar perspective, Courage and Setliff (2010) also argued that viewing television at an

age before 18 months do not help hold attention as it does not have content that babies can understand. The researchers point out that there is no scientific evidence that watching television leads to lack of attention, and they also claim that educational videos in the first year of life have very low teaching potential. However, with the start of meaning and the development of perceptual, cognitive skills and social understanding, the potential for teaching increases. Repeated exposure to visual media helps infants learn the format and content of media (Linebarger and Vaala, 2010). According to Calvert and Kotler (2003), children in the first grades of preschool and elementary school are unable to remember implicit messages requiring a good inferencing skill. However, it is also emphasized that children as young as 6 can have the ability to understand metaphors (Waggoner et al., 1997).

As can be inferred from what has been mentioned above, television and animation can have long-term effects on language development, cognitive development, body perception and so on. On the other hand, perhaps the most important subject of research among these is violence (American Psychiatric Association, 2005; Anderson et al., 2003; Bonds, 2002; Browne & Hamilton-Giachritsis, 2005; Gentile et al., 2004; Groebel, 1998; Hoffner et al., 2001; Huesman et al., 2003; Jipguep & Sanders-Philips, 2003; RTUK, 2005; Walsh & Gentile, 2001; Zuckerman & Zuckerman, 1985). According to the National Research Council and Institute of Medicine (2006), audience characteristics, program sensitivity and family mediation can intensify or mitigate the effects of violence on children. However, the effects of violence have not yet been fully understood.

The comparison of other materials within children's entertainment culture and violent behaviour in response to cartoons is another subject of research. In Lin's (2013) study, the answer to the question "does playing a violent computer game, watching a recorded game or watching a movie affect short-term violent behaviour?" was sought. The study found that those who played violent computer games experienced higher levels of aggressive emotions, aggressive cognition and psychological stimulation compared to others. A significant relationship between violent computer games and the development of aggressive behaviours was found. However, the effect of violent computer games on developmental changes have not yet been revealed (Kirsh, 2003). On the other hand, Williams (2014) emphasized that studies on computer games reveal a strong relationship between dissociation and the feeling of being and pleasure within the game. Krahe and Möller (2010) examined the long-term effects of media violence on aggression and empathy. As a result of the study, there was no relationship between exposure to non-violent media and aggression or exposure to violent media and relational aggression. The general belief about violence in television shows, especially cartoons, is that it has a negative effect on children's behaviour. However, contrary to this common belief, young children may be less prone to imitating the violence they see on television (Blumberg, Bierwirth & Schwartz, 2008).

Some studies argue that cartoons can affect children's behaviour and attitudes. In the study conducted by Fouts, Callan and Piasentin (2006), it was found that children's attitudes towards demonizing may be due to the cartoon content that they watch. Feature-length cartoons, unlike television and series, can bring more intimacy and identification about the character. This is because, when situations are created, events, emotions and potential lessons can have more impact on children than other media sources. Researchers argue that multiple exposures to films such as Disney's feature-length animations have an impact on children's understanding of the world and their attitudes. Leiner et al. (2004) found that messages given through animated film content are more effective than messages given by written explanations.

In addition to the studies stated above, there are also studies investigating the instant reactions during television viewing. For example, Courage et al. (2010) conducted a study and infants and parents offered free playtime was observed. Research results indicated that 6-to 18-month-old babies focus more on toys than on video and their parents. Parents were found to focus their attention on the baby and the toy, and a little bit on the video. But when the video was on, they were found to have less communication with their babies and less play with them.

In another study on immediate response, Lima et al. (2013) tested the use of animated films along with children's songs to make children who undergo ultrasound behave more treatable. Of the 464 children who underwent ultrasounds during the study period, 88 needed sedation. All of the participants, except one patient with menthol retardation, are under 5 years of age. It was found that 83% of respondents were relieved by the animation. The study found that the effect of animation viewing did not vary according to gender, age or the body part being interfered with. A similar study was also conducted on children who would undergo surgery. Gao et al. (2014) explored the effect of interesting games in reducing pre-surgery anxiety of children. The research conducted with preschool-age children revealed that there was a difference in anxiety when undergoing surgery between those in the experimental and control group. A significant difference was found in favour of the experimental group during the waiting period before anaesthesia. Similar findings apply to the findings of the study conducted by Durusoy et al. (2002).

In the studies given above, the effect of television and animation on children and partly on young people was found out by the long-and short-term responses of these samples to television and animation content. However, no study examining what kind of reactions children had during the viewing period and whether these responses were correct was found out in the relevant literature. Therefore, this study aims to identify the behavioural responses of children during their animation viewing time and the variables that these responses may be related to.

Method

Research Model

Qualitative and quantitative research models both used in this research as mixed model. Toy Story 3 was selected for the research. The behaviours and scenes of the film were analysed using the content analysis technique. After analysing the film, the film was divided into categories and codes according to minutes and scenes, and each part was given a code according to the meaning or characteristic of the examined piece. To ensure the validity of the codes determined, field experts were presented and asked to watch the film and evaluate the codes. Thus, the consistency coefficient was calculated and the validity of the code system was ensured. The selected animated film was then shown to children aged between 3 years and 9 years of age and the video footage was analysed using the codes that were determined beforehand in terms of the facial expressions and observable behaviours of the children. With the help of the initially developed coding system, the behaviour observed in that second of the film and the element reflected in the film content were combined. Thus, the children's reaction to the item in the film was revealed. For the consistency of this category and code system, some of the videos obtained from children were viewed by different researchers and evaluated by categories. The data obtained were found to indicate the consistency of the form.

Research Material

Toy Story 3 (Animated Film): The study in which the violent content in animated films was investigated and the violent content of 23 animated films was analysed (Turkmen, 2012) suggested that Toy Story 3 was suitable for this research. It was also the highest revenue of all time in the world (<http://www.boxofficemojo.com/alltime/world/>, 11.08.2013) indicating that it was the most-watched animated film. To get children, watch Toy Story 3, Disney Turkey, the producer company, and Tiglon, the distributor company, were contacted and relevant permission was obtained for the display. Markham and Chiu's (2012) review can be read, for more detailed information about the Toy Story 3. These films and their box office returns are as follows:

Table 1. Worldwide Box Office Figures of Animated Films

Rank	World Rank	Name of the Animated Film	Company	Turkey (2017) TL*	Worldwide	Overseas Sales		Year Released
						Revenue	%	
1	5	Toy Story 3	BV	3.672.533	\$1.063.2	\$648.2	61%	2010
2	15	Shrek 2	DW	3.327.419	\$919.8	\$478.6	52%	2004
3	19	Ice Age: Dawn Of Dinosaurs	Fox	11.448.378	\$886.7	\$690.1	77.8%	2009

* Box-office figures regarding Turkey were obtained from <https://boxofficeturkiye.com> on 18.08.2017

Research Group

The research was planned to include at least 30 children from 3, 4, 5, 6, 7, 8 and 9 age groups. The children included in the study group were reached at their schools that they attended. In the

consent form sent to the families, the children of the families who reported that they had allowed their child to participate in the study were included in the study. The children viewed the animated film together with their age groups in groups of 13-18 people. During the viewing period, the behaviour of all children was observed by using two ceiling cameras. The control over children was also taken into consideration in this preference.

Children in 3, 4, and 5 years of age were chosen from preschool classes, and children in 6, 7, 8, and 9 years of age were chosen from primary school classes. In the determination of the children and classrooms, random sampling was used for research. Since the choice of a school or class belonging to certain socio-economic or different characteristics would be contrary to the purpose of research, random sampling was used. Another reason for this choice is that the research is based on the principles of developmental characteristics of the children rather than their characteristics. As a result of the study, the research group consisted of the age and gender characteristics presented in Table 2.

Table 2. Age and Gender Characteristics of the Research Group

Gender	Age (Month)							Total
	37-48	49-60	61-72	73-84	85-96	97-108	109-120	
Male	15	16	12	9	15	15	16	98
Female	17	17	14	15	20	13	16	112
Total	32	33	26	24	35	28	32	210

The instrument for Data Collection

Quantitative analysis was carried out by collecting data with a qualitative method in the research. A demographic evaluation form, an animated film evaluation form, a film viewing behaviour Observation Form (category and code table) were developed for this study because there are no valid and reliable categories and codes prepared by a qualitative method in the relevant literature. The research also used Toy Story 3 film as material.

Demographic Evaluation Form: The demographic evaluation form consisted of the variables that could theoretically be related to film viewing behaviours that were thought to be related to various studies during the literature review. The basic idea in the creation of this form is to provide information about the child and the arguments that will provide answers to the research questions. With the demographic evaluation form, various information about the children participating in the study was collected. Since this information was about the children's family and their own lives, it was taken from the children's families. In the light of received feedback, the final version of the form was prepared and sent to the families together with the consent form.

Animated Film Evaluation Form: Toy Story 3 film was evaluated and analysed through the developed animated film evaluation form. During the creation of this form, Toy Story 3 was first viewed by a researcher and all the behaviours in the film were recorded in minutes and seconds. This process was repeated by another researcher to prevent the behaviour exhibited in the film content from

being overlooked. The resulting minutes and seconds-based behaviour lists are combined and all of the behaviours revealed throughout the film were listed. Then the emotional states caused by each behaviour in the film were identified. Each emotional state was associated with the minutes and seconds in the film process through the codes, resulting in a chart of the items and times about the Toy Story 3 film. This chart was given to the 3 field experts and asked to evaluate the film. Based on the feedback, the codes were revised. In this way, the content and construct validity of the schedule was ensured. Furthermore, the level of consistency calculated between the researchers was found to be 81% (consistency level = amount of consistency x 100 / amount of consistency + amount of inconsistency).

Observation form for film viewing behaviour: following the development of the form that is about the analysis of the animated film, a coding form was developed to facilitate the analysis of the video shot while children were watching the film. This form consists of the seconds recorded in the animated film evaluation form and students. A child behaviour code system was developed to encode student behaviour in this form used in the analysis of videos. This code system was created before the pilot study began and consisted of 25 behaviors. The number of behaviors increased to 46 with the additional codes obtained during the pilot study. The number of these behaviors during the actual application reached 85.

Analysis of the Data

Content analysis, a qualitative research method and quantitative research models were both used in this research. In the study, Toy Story 3 film was used as the research material. Toy Story 3 film was examined by categorical analysis technique based on behaviour. Besides, children's film viewing behaviours were videotaped and video content was analysed using categorical and frequency analysis techniques, one of the content analysis techniques. Behaviours as a unit were discussed in content analyses. The obtained qualitative data were processed and converted into quantitative data and subjected to statistical analysis. The data obtained with the forms were delivered for the content analysis by the researcher. The Kruskal Wallis test and Mann-Whitney U-test were used to examine the difference between groups in terms of age groups, gender and other independent variables following the quantification of qualitative data through codes. The analysis of the data was carried out through the SPSS 21.00 statistical package program. Within the scope of the research, 103 minutes of Toy Story 3 film and 210 (number of students) x 103 (duration of Toy Story 3 film) = 21.630 minutes (360.5 hours) of video footage were analysed.

Findings

The results of the Kruskal Wallis test for the behaviour of children from different age groups while watching Toy Story 3 are given in Table 3.

Table 3. Kruskal Wallis Test Result of Film Viewing Behaviors by Age

Group	N	Rank Average	Sd	χ^2	P	Group Difference
4,00	31	88,79	6	19,052	,004	-
5,00	33	117,42				
6,00	26	114,67				
7,00	24	127,46				
8,00	35	123,07				
9,00	28	80,14				
10,00	32	85,17				

The results of the analysis show that the behaviors exhibited by children watching Toy Story 3 differed significantly based on age [$\chi^2 (6) = 19,052, p < .05$]. This finding suggests that the behaviors that children exhibit while watching animated film are different based on age groups. When group rankings are taken into account, it is observed that the 7-year-old group exhibits the most appropriate behaviour for the film content. The Dunn-Bonferroni test conducted to find out the difference between the groups did not find out the source of the difference according to adjusted significance levels ($p > .05$).

Table 4. Kendall's Tau-b test result for the relationship between film viewing behaviors and age

Kendall's Tau-b	Age	Film Reaction	
		Correlation Coefficient	P
		-.066	,200
			209

As can be seen in Table 4, Kendall's Tau-B correlation analysis conducted to find out the relationship between children's ages and movie viewing behaviors did not suggest any significant relationship between the scores at $p < .05$ level ($r = -.066; p > .05$). In other words, this relationship determined by the Mann Whitney U test could not be correlated.

Table 5. Mann Whitney U-Test Result of Film Viewing Behaviors by Gender

Group	N	Rank Average	Rank Total	U	p
Male	100	102,61	10260,50	5210,500	,509
Female	110	108,13	11894,50		

The Mann Whitney U - test results for the behaviour of children from different gender groups while watching Toy Story 3 are given in Table 5. When Table 5 was examined, it was observed that there was no difference in the behaviour of children while watching Toy Story 3 in terms of boys and girls ($U = 5210,5, p > .05$). When ranking averages were taken into account, there was no big difference between the scores of boys and girls. This finding suggests that children from different gender groups exhibited similar behaviour during movie viewing.

Table 6. Kruskal Wallis Test Result of Film Viewing Behaviors According to Mother's Perceived Parenting Style

Group	N	Rank Average	Sd	χ^2	p	Group Difference
Democratic	108	95,66	3	,919	,821	-
Authoritative	33	93,68				
Demanding	9	83,67				
Protective	41	101,46				

Table 6 shows that the behaviors exhibited by children watching Toy Story 3 do not differ significantly according to the mother's perceived parenting style [$\chi^2 (3) = 0,919, p > .05$]. This finding suggests that the behaviors that children exhibit while watching an animated film do not differ based on the parenting style that their mothers perceive. When group rankings were taken into account, it was observed that the children of the mothers who considered themselves as protective parents exhibited the most appropriate behaviour to the viewed film content, but the groups did not significantly differ from each other.

Table 7. Kruskal Wallis Test Result of Film-Viewing Behaviour Based on Father's Perceived Parenting Style

Group	N	Rank Average	Sd	χ^2	p	Group Difference
Democratic	109	90,94	3	2,587	,460	-
Authoritative	51	87,62				
Demanding	4	121,88				
Protective	19	103,53				

The results of the analysis show that the behaviors exhibited by children watching Toy Story 3 did not differ significantly according to the parenting style perceived by the fathers [$\chi^2 (3) = 2,587, p > .05$].

This finding suggests that the behaviors that children exhibit while watching an animated film do not differ based on the parenting style that their father perceives. When group rankings were taken into account, it was observed that demanding fathers exhibited the most appropriate behaviour to the film content, but the groups did not significantly differ.

Table 8. Kruskal Wallis Test Result of Film Viewing Behaviors According to the Person Who sets the Rules in the House

Group	N	Rank Average	Sd	χ^2	p	Group Difference
No rule set	12	97,08	6	4,412	,621	-
Mother	43	101,85				
Father	12	72,50				
Child	2	47,00				
Other (Grandmother-grandfather)	1	113,00				
Shared (Mother-Father-Child)	36	95,10				
Shared (Mother-Father)	83	95,30				

The findings in Table 8 show that the behaviors exhibited by children watching Toy Story 3 did not significantly differ according to the person who set the rules at home [$\chi^2 (6) = 4,412, p > .05$].

This finding suggests that the behaviour children exhibit while watching an animated film do not differ based on the person who sets the rules at home. When group rankings were taken into account, it was found that the children whose grandmothers and grandfathers set the rules exhibited the most appropriate behaviors to the film content, but the groups were found not to significantly differ.

Table 9. Kruskal Wallis test result of Film-viewing behaviour according to the State of Imposing Punishment When the Rules are not Followed at Home

Group	N	Rank Average	Sd	χ^2	p	Group Difference
Definitely	11	88,55	2	,587	,746	-
Sometimes	144	97,20				
No Punishment Imposed	35	90,69				

It is seen in Table 9 that the behaviour exhibited by children watching Toy Story 3 did not differ significantly according to the state of imposing punishment when children did not stick to the rules [$\chi^2 (2) = 0,587, p > .05$]. This finding suggests that the behaviour that children exhibit while watching an animated film does not differ based on the state of imposing punishment when they fail to follow the rules at home. When group rankings were taken into account, they indicated that the most appropriate behaviour to the film content was exhibited by those who were (sometimes) punished, but no significant relationship was found between the states of being punished.

Table 10. Mann Whitney U-Test Result Film Viewing Based on the state of setting the rule of watching television at home

Group	N	Rank Average	Rank Total	U	p
Rule set	139	91,46	12712,50	2982,500	,194
No rule	49	103,13	5053,50		

When Table 10 was examined, it was observed that there was no difference between children's behaviour when watching Toy Story 3 and children who did or did not stick to the rules about watching television ($U=2982,5, p > .05$). When ranking averages were taken into account, it was observed that there was a difference in the children who were imposed rules or who were not imposed, but this difference was not statistically significant. This finding suggests that children imposed rules and those without any imposed rule exhibit similar behaviour during movie viewing.

Table 11. Kruskal Wallis Test Result of Film Viewing According to Who Sets the Rules for Watching TV at Home

Group	N	Rank Average	Sd	χ^2	p	Group Difference
No rule	41	106,01	5	7,580	,181	-
Mother	41	101,37				
Father	9	60,56				
Child	5	111,70				
Shared (Mother-Father-Child)	19	104,08				
Shared (Mother-Father)	76	88,85				

The results of the analysis show that the behaviour exhibited by children watching Toy Story 3 did not differ significantly according to the person who set the rules for watching television [$\chi^2 (5) = 7,580, p > .05$]. This finding suggests that the behaviour children exhibit while watching an animated film does not differ according to the person who sets the rules. When group rankings were taken into account, it was observed that the group of the child who set the rules displayed the most appropriate behaviour to the film content, but there was no significant difference between the groups.

Table 12. Kruskal Wallis Test Result of Film Viewing Behaviour According to the Tv Viewing Duration of the Child

Group	N	Rank Average	Sd	χ^2	p	Group Difference
0-5	116	90,06	2	1,636	,441	-
5,5-10	57	95,48				
10,5-above	12	109,58				

The results of the analysis show that the behaviors exhibited by children watching Toy Story 3 did not differ significantly according to the child's television viewing duration [$\chi^2 (2) = 1,636, p > .05$]. This finding suggests that the behaviors that children exhibit while watching an animated film did not differ according to television viewing duration. When group rankings were taken into account, it was observed that children watching television for 10.5 hours and above gave the most appropriate behaviour to the film content, but no significant differences were found between the groups.

Table 13. Frequency and Percentages of Children's favourite cartoon characters *

Rank	Character	Male	%	Female	%	Total	%
	Elsa (Frozen)	0	0	11	5,1	11	5,1
	Bloom (Winx)	0	0	10	4,7	10	4,7
	Spiderman	5	2,3	2	,9	7	3,3
	Pepee (Domestic)	3	1,4	4	1,9	7	3,3
	Richard Waterson (Gumball)	4	1,9	3	1,4	7	3,3
	Fin (Adventure Time)	4	1,9	3	1,4	7	3,3
	Jett (Super Wings)	4	1,9	2	,9	6	2,8
	Batman	4	1,9	1	,5	5	2,3
	Supermen	4	1,9	1	,5	5	2,3
	Mia	2	,9	3	1,4	5	2,3

* Of the 65 characters, the first 10 are given.

When the table on children's favourite cartoon characters was examined, it was found that the most popular character was Elsa (n=11, 5.1%) from the “Frozen” animated film. All 11 children who preferred this character were female. In the second place was Bloom (n=10, 4.7%), a character from Winx, again another animated film for girls. In the same way, all of those who preferred the character Bloom were female. Later in the 7 frequency range, Spider-Man, Pepee, Richard Waterson (from the Gumball animated film) and Fin characters from The Adventure Time Cartoon were ranked by 3.3% weight. When we looked at the gender of the children who preferred these characters, it was seen that there was an equal distribution. Out of these, a total of 59 characters were found as children's favourite characters. When the table was examined, it was observed that participants were found not to have preferred one or several characters, but rather their preferences were found to have scattered.

However, the remarkable finding is that cartoon characters aimed at girls are preferred only by girls, while characters aimed at boys are preferred by both girls and boys.

Table 14. Kruskal Wallis Test Result of Film Viewing Habits Based on Television Viewing Duration of Children in Parental Control

Group	N	Rank Average	Sd	χ^2	p	Group Difference
,00 Hour	28	70,39	9	8,921	,445	-
1,00 Hour	23	97,54				
2,00 Hour	43	98,47				
3,00 Hour	42	92,39				
4,00 Hour	16	77,22				
5,00 Hour	15	95,30				
6,00 Hour	2	69,75				
7,00 Hour	2	87,50				
8,00 Hour	3	72,67				
9,00 Hour	5	116,70				

Table 14 shows that the behaviors exhibited by children watching Toy Story 3 did not differ significantly based on viewing Tv viewing duration in parental control [$\chi^2 (9) = 8,921, p > .05$]. This finding suggests that the behaviors that children exhibit while watching an animated film do not differ based on children's Tv viewing duration in parental control. When group rankings were taken into account, it was observed that children who watched films for 9 hours in parental control exhibited the most appropriate behaviors to the film content, but no significant differences were found between the groups.

Table 15. Kendall's Tau-b test result of film viewing behaviors in parental control

		Film reaction
Kendall's Tau-b	TV viewing	Correlation coefficient
	duration in	P
	parental control	N
		,045
		,419
		179

When Table 15 was examined, Kendall's Tau-B correlation analysis conducted to find out the relationship between television viewing durations and film viewing behaviors in parental control of children revealed that the scores were statistically significant at $p < .05$ level ($r = -.045; p < .05$).

Table 16. Kruskal Wallis Test Result of Film Viewing Behaviour Based on the Parent's Reaction When Child Fears

Group	N	Rank Average	Sd	χ^2	p	Group Difference
I switch channel/switch off	29	98,52	5	14,713	,012	-
I explain the content considering the child's comprehension level	46	69,39				
S/he is not scared/S/he does not tell that s/he is scared	14	84,46				
I give the message that I stand by her/his side	16	109,00				
I explain the difference between the real and dream	24	95,58				
I tell her/him not to watch the film	38	72,59				

According to the results of the analyses (Table 16), the behaviour exhibited by children watching Toy Story 3 differed significantly according to the way their parent reacts when they were scared while watching TV [$\chi^2 (12) = 14,713, p < .05$]. The Dunn-Bonferroni test conducted to determine the difference between the groups did not find out the source of the difference according to adjusted significance levels ($p > .05$).

Table 17. Kruskal Wallis Test Result of Film Viewing behaviors According to the Type of Viewed Program

Group	N	Rank Average	Sd	χ^2	p	Group Difference
Not stated	63	103,63	5	7,240	,203	-
Series	47	89,39				
Documentary	22	84,66				
Competition Program	36	110,99				
Film- Animation-Comedy	9	115,89				
Entertainment Program-News-Music	18	82,17				
Channel-Kid's Program-Sports Program						

The analysis showed that the behaviour of children watching Toy Story 3 did not differ significantly according to the types of programs they watched on television [$\chi^2 (5) = 7,240, p > .05$].

Table 18. Kruskal Wallis Test Result of Film Viewing Behaviour by the Age at Which Movie Watching Behaviors Started

Group	N	Rank Average	Sd	χ^2	p	Group Difference
0-12	22	88,07	5	11,317	,045	13-24/61-72
13-24	69	92,50				
25-36	47	82,53				
37-48	21	77,88				
49-60	4	94,00				
61-72	6	25,75				

The results of the analysis showed that the behaviors exhibited by children watching Toy Story 3 differed significantly according to the age at which they started watching television [$\chi^2 (5) = 11,317, p < .05$]. This finding suggests that the behaviors that children exhibit while watching animated films differ according to the age at which they start watching television. When group rankings were taken into account, it was observed that the group who started watching television in 49-60 months and 13-24 months exhibited the most appropriate behaviour to the film content. With the Dunn-Bonferroni test conducted to find out the difference between the groups, it was found that the source of the difference between the groups was the group that started watching television between 13-24 months and the group that started watching television between 61-72 months ($p = 0,019$).

Table 19. Kruskal Wallis Test Result of the Film Viewing Behaviour Based on What Parents think about the Functions of Animated Films

Group	N	Rank Average	Sd	χ^2	p	Group Difference
Very functional instrument	22	93,50	7	18,099	,012	3-8
Informative	37	83,64				
Educative	38	67,57				
Spare time activity	50	101,36				
Provides time for parents	13	90,35				
Dysfunctional	3	83,83				
Harmful	3	73,17				
An instrument with both positive and negative sides	13	129,04				

The results of the analysis show that the behaviors exhibited by children watching Toy Story 3 differed significantly according to their parents' perspective on the function of cartoons [$\chi^2 (7) = 18,099, p < .05$]. This finding suggests that the behaviors children exhibit while watching an animated film differ based on their parents' view regarding the function of the cartoons. When group rankings were taken into account, it was seen that the children of parents who see cartoons as a tool with both positive and negative aspects exhibited the most appropriate behaviour to the film content. As a result of the Dunn-Bonferroni test conducted to find out the difference between the groups, it was found that the source of the difference according to the corrected significance levels was found to be the parents who considered cartoons educational and the groups who considered them as a tool with both positive and negative aspects ($p = .0,006$).

Table 20. Mann Whitney U-Test Result of Film Viewing Behaviour According to Purchasing for Child the Toy of the Viewed Cartoon Character

Group	N	Rank Average	Rank Total	U	p
Purchased	153	93,79	14350,50	1867,500	,175
Not purchased	29	79,40	2302,50		

When Table 20 was examined, it was observed that there was no difference in the behaviour of children when watching Toy Story 3 according to the state of purchasing a toy of the cartoon character viewed and children who did not receive any toy ($U = 1867,5, p > .05$). When ranking averages were taken into account, there was no big difference between the children who received toys and the scores of those who did not receive. This finding suggests that children who received and did not receive a toy of the cartoon character viewed exhibit similar behaviour during movie viewing.

In the study, children were asked about the top 5 cartoon films they liked most respectively. The rankings of cartoons by their frequency and total frequency scores according to their rating level are given in Table 21.

Table 21. Frequency chart for children's favourite cartoons *

Cartoon Film	1.Rank	2.Rank	3.Rank	4.Rank	5.Rank	Total
	F	F	F	F	F	
Rafadan Tayfa (Domestic)	10	9	13	5	9	46
Keloğlan (Domestic)	7	8	11	11	4	41
Pepe (Domestic)	9	4	7	7	5	32
Winx	6	7	3	7	6	29
Canım Kardeşim (Domestic)	8	3	2	7	3	23
Gumball and Darwin	9	3	4	4	3	23
Maya the Bee	8	5	5	2	3	23
Super Wings	9	4	6	1	2	22
Princess Sofia	4	6	3	4	1	18
Niloya (Domestic)	2	6	6	0	3	17

* Of the 69 cartoons, the first 10 are given.

In Table 21, the cartoons that children like to watch most are given respectively. It was found that the children in the research group liked Rafadan Tayfa (F=10) most, which is a Turkish-made cartoon film. The second cartoon favoured most was Pepee, Gumball and Darwin and Wings (F= 9). In the second and third place, the most popular cartoon was the Rafadan Tayfa again (F=9, F=13). In the fourth place, the most preferred cartoon was Keloğlan, a Turkish domestic production. In the fifth place, the most preferred cartoon was Rafadan Tayfa again. In terms of the sum of the frequencies, it was seen that the most preferred cartoon was the Rafadan Tayfa (F=46). In terms of total frequency, the second place is Keloğlan (F=41) and the third place is Pepee (F=32). What is attention taking in this ranking is that the children's favourite cartoons are the products of their own culture, and in general, they prefer non-violent cartoons. The first 10 films that are preferred in terms of overall frequency were examined, and 5 of them were Turkish-made cartoons and the other 5 were cartoons produced out of Turkey. The striking point about this finding is that there are a total of 170 cartoons among the 5 favourite cartoons. Although this data shows that at first glance the most preferred cartoons show a very wide distribution, 66 out of 170 cartoons had only 1 frequency, while 100 had 2 and 1 frequencies. According to this finding, there are only 70 cartoons with a total frequency of 3 and over. Considering that there are 210 children in the research group and each of them expressed 5 preferences, the presence of 70 cartoons indicates that the diversity is not as broad as though (cartoons with frequencies 1 and 2 are not included in the table).

Discussion

Children's reactions to the media content –especially cartoons and animation they encounter– need to be revealed. Besides, it is also necessary to determine the behaviour patterns and values that children understand and internalize from the content they watch, as well as the reactions given during film viewing. This study aimed to present the perceptual structure of the children from each age group about the content of animation that they view and to gather data if parents evaluate their children considering their peers and age groups during and after their animated film viewing period.

Considering the research findings, it was seen that the children's age was primarily related to their reactions to the animated film they are watching (Toy Story 3 film was examined in this study). It could be said that especially children in the age group of 4 differed from other groups. However, when the rank averages of 9-and 10-year-olds were considered, it could be claimed that they were similar to the 4-year-olds. This may have resulted from the fact that 9 and 10-year-olds cannot adequately focus on the content they are watching. Another explanation for this may be that the monitoring behaviour of children aged 9 and 10 is different from those children younger than them. Another point that needs to be highlighted among the findings is that children's animated movie-watching behaviors did not differ in boys and girls. Previous research like Oliver and Green's (2001) states that girls are more likely to express their feelings to the viewed sad movie scenes.

Parental style, which was found to be related to many of the child's behaviors, was also found not to be related to the children's animated film viewing behaviour. Moreover, it was also found that the state of having rules set for film viewing at home or not having, who sets the rules at home for film viewing was found not to be related to film viewing behaviour. The fact that parents apply punishment when their children do not stick to the set rules or misbehave was found to be related to the behaviors that children exhibit when they watch an animated film

Another variable which was found to be related to the behaviour of children' animated film viewing behaviors is that there are rules about watching television at home. The findings suggest that children's behaviour toward watching animated movies is similar, whether or not there are rules about watching television at home. It also appears that who sets the rule for watching television at home, does not make any difference. This can be the result of parents' attitudes for cartoon viewing. Voort, Nikken and Lil (1992) indicated that parents' beliefs about the effect of tv viewing predicts their tv viewing guidance style.

When Tv watching hours considered, findings show similar watching hours with İlhan and Çetinkaya's (2013) research. The analysis conducted considering that children who watch too much television may be more experienced in this regard shows that children's television viewing times are not related to the behaviour of children who watch animated movies. Similar result can be seen in Potts, Dedmon and Halford's (1996) research. When children were asked about their favourite cartoon characters, the character Elsa from the "Frozen" animated film and Bloom from the "Winx" cartoon that is most identified with girls were preferred among the 166 responses. Although the analysis was intended to be carried out according to the popular cartoon character, that the answers had characters up to 65 and the limited size of the research group did not allow this. However, what is interesting with this research is that despite the limited respondents in the study (166 children), the responses obtained were various (65 cartoon characters). This may be due to different age groups as well as the

fact that cartoon sources and characters are quite wide-ranging. It is also clear that all children may not have a dominant cartoon culture.

Another finding regarding the participants' favourite cartoon character is that Richard Watterson character from the Gumball animated film, which was found to be at the 5th rank, came to the forefront. When you watch the Gumball cartoon, it can be easily seen that this character is one of the side characters and that his attention-grabbing characteristic is his lazy like behaviour and shows no signs of intelligence. In the cartoon, this creates quite funny moments. Among the children, while the Gumball, the main character of this animated film, is ranked 21, Richard Watterson who is a side character in the animated film is preferred to view so much. This may be due to its comic content.

When the children's television viewing hours under parental control were evaluated, it was found not to be significantly related to the children's animated film-watching behaviour. In this respect, it shows that watching television under parental control is not related to the behaviour that children exhibit while watching animated films. This finding is contrary to Hogan's (2012) opinions. However, when another variable which was about the reaction of parents when their children face content that their children may be scared, the groups were found to significantly differ. At this point, the message that parents given by viewing the film content with their children was found to be related to the reaction that children give to the content of the viewed animated film. These finding points out "restrictive mediation" styles which has been researched by Bağlı (2003) can be important about children watching behaviour. On the other hand, an other research by Koolstra and Lucassen (2004) showed that parents and children watches tv together as social co-viewers.

Another variable that is thought to be related to the child's behaviour of watching animated movies is that the children are watching a program other than cartoons. When children watching programs other than cartoons were examined in terms of the types of programs they were watching, it was seen that the reactions of children to the animated film did not change. Potts, Dedmon and Halford (1996) states that viewed program category is not associated with sensation seeking and age. One of the rare variables associated with children's behaviour when watching animated films is the age at which children start watching television. Children who started watching television at an earlier age were found to react more appropriately to animated film content. Besides, the children of the parents who considered cartoons as educational tools had more appropriate reactions to the animated film than the children of the parents who considered cartoons as tools with both positive and negative aspects.

Karaca, Pekyaman and Güney (2007) stated that parents think 36% of their children effected by the toy commercials. In this study 153 of 181 parents emphasized that they bought a toy of a cartoon character. Purchasing a toy that is a cartoon film hero to the child and the child's desire for such a toy was found not be related to the behaviour exhibited while watching animated films. This

also applies to the analyses conducted considering both the number of toys received and the number of toys requested.

Parents' perceptions of the level of violence in the content of cartoons were again found not to be related to the behaviour of watching animated films. With a protective perspective, it is thought that the investigation of media content which may have a big negative effect on children's attitudes and behaviors, and revealing both negative and positive sides will affect children's development positively and prevent potential problems before they emerge. On the other hand, it is another idea that children's development could be helped and facilitated with cartoons. The findings of this study indicate that children's cognitive skills during watching animated films in general and for the content they are watching, in general, are progressing on a developmental basis. This study also offers the idea that many of the views aiming to protect children (especially interventions by parents) may not be functional.

It is thought that behaviourist approaches such as "you as parents need to be a role model" may not be determinant in children's relationship with the media and especially with television. Although this study was not intended to be a research in a theoretical context, it was realized that there was a need for research in which children's attitudes towards cartoons and media were investigated, especially within the framework of Jean Piaget's theory of cognitive development. With this study, it was believed that the child's relationship with the media was more advanced based on cognitive development and that this progress could be evaluated especially in the context of maturation. It has been observed that the support parents give to the child should have a more emotionally reassuring nature (especially in the case of fear). Besides, it was observed that the behaviors that children exhibit during animated film viewing are not related to their knowledge and evaluation of the content of the cartoons, and generalizations about the cognitive status of the children cannot be made from the instantaneous behaviors that occur during film viewing periods.

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Turkish Language in the Perspective of Syrian Refugee Students: A Metaphor Study

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Abstract

One of the biggest obstacles to learning a language as a foreign language is the perception developed against that language. The obligation to learn the foreign language to be learned determines how the perception towards language is. In this context, Syrian refugees, who took refuge in Turkey leaving their country due to war and especially wish to continue their education in Turkey, had to learn Turkish. In this sense, knowing the perceptions of the relevant audience towards Turkish will directly affect many issues from developing a language education program to preparing books, from teacher training to redesigning methods and techniques to be used in lessons. In this connection, Turkish perceptions of Syrian refugees were tried to be determined through metaphors with this study. The study group of the study consists of 235 Syrian students who learn Turkish at Aydın TÖMER, Istanbul Aydın University. While collecting the data of the study using phenomenology approach, one of the qualitative research methods, students were asked to complete the sentence “Turkish is like, because””. Based on the findings obtained in the research, it was determined that 46% of Syrian students learning Turkish consider Turkish as a need, 25% have a positive feeling towards Turkish, 8% find it confusing, 7% find it easy, 6% find it difficult and 5% find a similarity between another language and Turkish. When the themes are examined in terms of their effect on the Turkish learning process, it is possible to say that the themes of need, positive feeling, finding it easy and similarity between languages have a supportive effect on students' motivation to learn Turkish, whereas the themes of finding it difficult and finding it confusing have an inhibitory effect on the learning process. When an evaluation is made in this respect, it is possible to say that nearly 90% of the students have a supportive perception of their own learning processes.

Keywords: Turkish as a foreign language, Syrian refugee students, perception, metaphor

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Introduction

The issue of Syrian refugees has a growing importance in Turkey's agenda since 2012. This issue both affects and is affected by basic fields such as education, politics, economy, and social life. This multi-dimensional interaction between refugees and society and the state takes the form of a multi-dimensional equation. So much so that a refugee can contribute to the country's economy by working, but if he cannot achieve social or cultural harmony, different problems may occur. Likewise, when a refugee who has adapted to social life does not work and has some economic difficulties, these problems may turn into problems that may affect the state and society. As can be seen, the full integration of refugees is a very important issue in terms of every component of the country. It would not be wrong to say that education is the first and most important step to facilitate the adaptation of refugees to Turkey and Turkish culture. Likewise, it is expected that the adaptation to social life will accelerate and the possibility of finding a job for those who want to work will increase. At this point, refugees' perception of Turkish comes into play as a factor affecting the entire process.

The education of refugees can be addressed at different levels or different types, but before all these, language education needs to be addressed. Such that a student who has learned Turkish well will not have language-based communication problems with his classmates or teachers in the trainings he will receive at different levels. At this point, refugees' perception of Turkish comes into play as a factor affecting the entire process. Knowing the perceptions of Turkish-learning refugees towards Turkish can be effective in shaping their educational planning, it will also provide predictability for these students' Turkish learning processes. In this context, the use of metaphors - etymologically consist of the combination of meta "beyond" and pherein "to carry, to take" and mean "transmit, carry beyond" in Greek (Demirci, 2016: 330) - in determining the perceptions of the target language learners towards that language is a very practical method. Because as Eraslan (2011: 1) also stated "metaphor, which has the process of seeing and understanding in addition to the label, meaning or conceptual expressions created by a concept in an individual, is a more important and powerful mental production than the individuals' simple explanation of one concept with another concept because it expresses the depth and experiences of the relevant concept." For this reason, the depth that Turkish learners have towards Turkish and the metaphorical reflections of their experiences in the relevant learning process will both determine their perception of Turkish and will be very useful for the discovery of their thoughts on language learning processes. Because Lakoff and Johnson (1980:5), who are the first that comes to mind when metaphor is mentioned, see the metaphor as "understanding and experiencing one kind of thing in terms of another". This will enable the target audience to know their thoughts on language and will guide the design of all components from language teaching plans and programs to the methods and techniques used in the lessons. Such that "Metaphoric thinking; In addition to being an extremely important and necessary tool for understanding how we communicate, learn, discover

and invent, as well as enable us to get to know ourselves and others, it is a way of thinking rather than a way of speaking and at the same time a different way of seeing to perceive the living environment and events.” (Uçan Eke, 2019: 238). “Metaphors are reflecting the elements of the universe through one's own emotion and thought filter. Thus, the person expresses the images of this world with his own perception.” (Mete and Ayrancı, 2016: 54). “Metaphor is both a very useful expression and a production tool in a structural sense. With the feature of the ease of transition / adaptation to new situations arising in mental and structural areas, metaphors have been used in literature, language, education and different fields as a production factory.” (Demirci, 2016: 330). “Metaphor is naming any event, situation and object that occurs in the mind through connotation, with a new meaning and a different word, except the word that meets its real meaning.” (Karatay, 2016: 69). In addition to all these definitions, “metaphoric thinking and learning can also be considered as an approach that aims to increase the creative and critical thinking abilities of students, together with some teaching techniques whose effectiveness and efficiency have been proven by scientific data before.” (Arslan and Bayrakçı, 2016: 101). Littlemore and Low (2006), underlining the necessity of accepting metaphor production as a separate skill, states that the use of metaphors contributes to linguistic, textual, daily speaking, sociolinguistic and strategic competence, which are among Bachman's (1990) language competence components and emphasizes that metaphor is highly relevant to second language learning and teaching. As can be seen, the use of "metaphor" has an educational value for both learners and teachers. Zhang and Hu (2009: 80) explain it as follows: “Teachers of foreign language should well know new discoveries in study of metaphors and elaborate on theoretical basis behind linguistic phenomenon of various kinds and organize the bits and pieces of Language phenomenon into a whole by dint of metaphor theories.” Because metaphors, which are considered useful in expanding a cognitive framework or ability (Komorowska, 2013: 60), are a rational bridge from the known to the rooted unknown, from a specific context of understanding to a changing context of understanding (Petrie and Oshlag 1996 cited in Komorowska, 2013: 60). “If metaphorical expressions constitute a substantial part of a language's means to package messages, it follows that developing a command of this repertoire of expressions is also an integral facet of second language (L2) learning.” (Hoang and Boers, 2018: 1).

In this regard, especially recently, the increase in the number of metaphor-based studies on learners of Turkish as a foreign language draws attention. Within this context, considering the relevant studies, Akkaya (2013) conducted studies to determine the perceptions of Syrian refugee students towards Turkish through metaphors; Karatay (2016) conducted studies to determine Iraqi students' perception of Turkey learn Turkish as a foreign language through metaphors; Boylu and Işık (2017) conducted studies to determine the perceptions of those who learn Turkish as a foreign language towards Turkish through metaphors; Göçen (2019) and Erol and Kaya (2020) conducted studies to determine the grammar perceptions of those who learn Turkish as a foreign language through

metaphors; Karatay and Kartallıoğlu (2019) conducted studies to determine Mongolian students' perceptions of Turkey and Turkish through metaphors; Ekren and Ökten (2019) conducted studies to determine the grammar perceptions of those who teach Turkish as a foreign language through metaphors, and Boylu and Işık (2020) conducted studies to determine Syrian refugee students' perceptions of Turkey through metaphors. From this perspective, except for the determination of Syrian refugee students' perception of Turkish by Akkaya (2013), there has been no study on the perceptions of Syrian refugee students towards Turkish for about seven years. In this context, the purpose of the research is to determine the perceptions of Syrian refugee students, who learn Turkish as a foreign language in Turkey, towards Turkish through metaphors. Within this scope, the following questions were sought:

1. With which metaphors do students explain their perceptions of Turkish?
2. Under which themes are the metaphors produced regarding Turkish collected?

Method

Research Model

In this study, phenomenology approach, one of the qualitative research methods, was used. Yıldırım and Şimşek (2011: 79) state that the purpose of phenomenology research is to reveal the experiences and perceptions of individuals regarding a phenomenon and the meanings they attribute to them. In this context, when looking at the studies both conducted in the field of teaching Turkish as a foreign language (Akkaya, 2013; Boylu and Işık, 2017; Göçen, 2019; Karatay and Kartallıoğlu, 2019; Erol and Kaya, 2020; Boylu and Işık, 2020) and based on metaphors in different disciplines (Kafadar and Akengin, 2016; Tıkman, Yıldırım and Şentürk, 2017; Yener and Atalay, 2018; Nas, 2019; Ciğerci, 2020), it is seen that phenomenology approach is used as a method. This reveals that the most appropriate method for such studies is phenomenology and it is a correct approach to use the same method in this study.

Study Group

The study group of the research consists of 235 Syrian refugee students who learn Turkish at A2, B1, B2 level at Aydın TÖMER, Istanbul Aydın University. It is seen that 108 of the students participating in the study are male and 127 of them are female. 174 of the relevant students learn Turkish at A2, 49 of them at B1, and 11 of them at B2 level.

Collection of Data

Looking at the studies in which perception was measured with metaphors, it was seen that the participants in the research completed the statement "XXX is like, because" in data collection (Saban 2004, 2008; Akkaya, 2013; Göçer, 2013; Boylu and Işık, 2017, Göçen, 2019;

Erol and Kaya, 2020; Boylu and Işık, 2020). In this context, students were asked to complete the sentence " Turkish is like because" while collecting the data of the relevant study. A personal information form was created in order to collect the personal information of the students.

Data Analysis

When the literature is examined (Saban, 2004, 2008; Altun and Apaydın, 2013; Akkaya, 2013; Boylu and Işık, 2017; Göçen, 2019; Boylu and Işık, 2020), the process of analyzing and interpreting metaphors in related studies takes place in the following four stages:

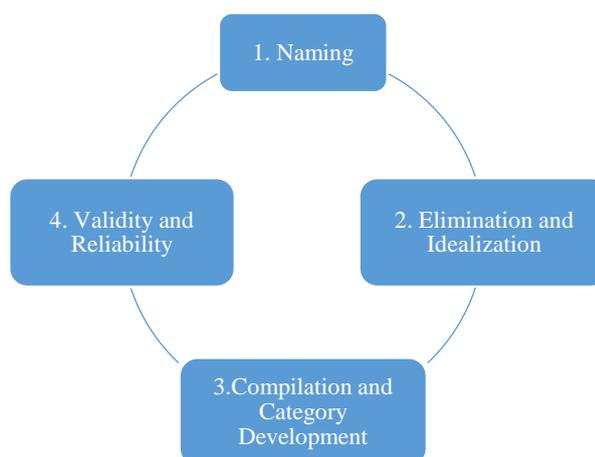


Figure 1. Process of analyzing and interpreting metaphors

Looking at the figure above, it is seen that the process of analyzing and interpreting the metaphors is carried out in four stages: "naming stage", "elimination and idealization stage", "compilation and category development stage" and "validity and reliability stage". In this research, these four stages were based on. In this context, what has been done at each stage is summarized as follows.

Naming stage: At this stage, it was examined whether the students produced metaphors or not. In this context, it was determined that 25 of the 235 students participating in the study did not write anything on the sentence pattern given to them, and documents belonging to 210 students were examined in the study. The metaphors produced by the students during the relevant examination process were transferred to Word as a list and the elimination phase was started.

Elimination and Idealization stage: The metaphor produced by 210 students who went through the naming stage was discussed and classified in the context of its subject, source, and the relationship between its subject and source. 52 erroneous metaphors (a language of mine, a beautiful language, that is everything, tsunami, a beautiful and important language, etc.), which did not have a meaning relation between the metaphor and its source, were deemed invalid and 158 metaphors were taken to the compilation and category development stage.

Compilation and category development stage: The metaphors produced by the students were examined in terms of their common features. In this context, 158 metaphors are grouped under six themes according to the area they conceptualize (similarity between languages, need, finding it easy, positive feeling, finding it confusing, and finding it difficult). The transition was made to the last stage - validity and reliability stage - to seek the opinion of an expert working in the same field to determine how accurately the metaphors, collected under themes according to the area conceptualized by the two experts conducting the research, are distributed.

Validity and reliability stage: At this stage, an expert was given a list of 158 sample metaphor images in alphabetical order and six theme names and their characteristics. Using both of these lists, the expert was asked to collect the sample metaphor images in the first list under six themes (without excluding any metaphor images) in the second list. The expert, whose opinion was consulted within the scope of the reliability study, associated 14 metaphors (book, special, lamp, light, bird, hot water, language, my mother language, diamond, flower, panda, my second language, morning) with a different category than the researchers. In this context, the reliability of the research was calculated using the formula of Miles and Huberman (1994: 64) ($\text{Reliability} = \frac{\text{consensus}}{\text{consensus} + \text{dissent}} \times 100$) (Saban, 2008: 467). In this case, the reliability was calculated as $\frac{158}{158 + 14} \times 100 = 91.86\%$. Saban states that when the harmony between expert and researcher evaluations is 90% and above in such studies, the desired reliability will be achieved (Saban, 2008: 467). Since the reliability of this study was calculated as 91.86 %, it can be said that validity and reliability were provided in the analysis of the generated metaphors.

In addition to the above information, it was observed that the students in the study group made linguistic mistakes, especially in the process of generating reasons for metaphors, since they learned Turkish as a foreign language. Within this framework, the reasons for the metaphors produced by the students were taken as they wrote without any correction.

Results

The findings obtained as a result of the analysis of valid metaphors developed by Syrian refugees who learn Turkish as a foreign language are as follows:

Findings and Interpretation on the question 1 “With which metaphors do students explain their perceptions of Turkish?”

Table 1. The Metaphors the Students Produced Regarding Turkish

No	Metaphor	Repetition No	No	Metaphor	Repetition No
1	Water	23	36	Lawyer	1
2	My mother language	16	37	Baklava	1
3	My second language	16	38	Breath	1
4	Life	10	39	Love	1
5	Sea	7	40	Mona Lisa Painting	1

6	Light	4	41	Money	1
7	Flower	3	42	Morning	1
8	Gold Book	3	43	Mother	1
9	Book	2	44	Cheerful and special	1
10	Bread	2	45	My right hand	1
11	Arabic lesson	2	46	Chocolate	1
12	Cocktail	2	47	My soul	1
13	Arabic	2	48	Ney	1
14	Homeland	2	49	Normal language	1
15	School	2	50	Ocean	1
16	Key	2	51	Dream	1
17	Rock	2	52	Part of me	1
18	Panda	2	53	Peacock	1
19	Turkish delight	2	54	Rain	1
20	Telephone	2	55	Road	1
21	Language	2	56	Diamond	1
22	Climbing a mountain	2	57	Crossword	1
23	Breath	1	58	Science	1
24	Forest	1	59	Bird	1
25	Girl	1	60	Sensory organ	1
26	Glasses	1	61	Snow	1
27	Challenge	1	62	Sun	1
28	Coffee	1	63	Teacher	1
29	Honey	1	64	Fire	1
30	Hot water	1	65	Tone of Istanbul	1
31	Island	1	66	Tulip	1
32	Çiğ köfte	1	67	Eye	1
33	Kurdish	1	68	Vegetable salad	1
34	Lamp in the dark room	1	69	Very Nice	1
35	First step	1	70	Waking up early	1
TOTAL			158		

Looking at the table above, it is seen that the currently produced 158 metaphors are arranged in alphabetical order. In this context, when the related metaphors are examined, it is seen that some metaphors produced by the students for Turkish are repeated: my mother language (16); my second language (16), life (10), sea (7), light (4), gold (3), flower (3), key (2), bread (2), cocktail (2), panda (2), water (23), homeland (2), telephone (2). Looking at the distribution of these recurring metaphors according to themes (except the “gold” metaphor), it is seen that they are gathered under different themes. In this context, it is seen that the metaphor produced by 5 of 16 students who explained Turkish with the metaphor of "my mother language" was gathered under the theme of similarity between languages, 2 of them are under the theme of need, 2 of them are under the theme of finding it easy, and 6 of them are under the theme of positive feeling. Likewise, 15 of the metaphors of the students who produce the "water" metaphor are under the theme of need, 7 of them are under the theme of finding it easy and 1 of them are under the theme of positive feeling. Based on all this information, it shows that although the produced metaphor is the same, its reason is explained differently. For example, while S234 coded student develops the "my mother language" metaphor for Turkish and emphasizes the similarity of the two languages by explaining the reason with the

expression “There are many common words between us.”; producing the same metaphor "my mother language", the student coded S34 stated that "It is very important for talking and understanding with people and studying." and highlights the need for Turkish.

Findings and Interpretation on the question 2 “Under which themes are the metaphors produced regarding Turkish collected?”

Considering the metaphors developed by the Syrian refugee students participating in the study, it was determined that the relevant metaphors were grouped under six different themes according to the areas they categorized in. In this context, the table showing the distribution of themes and metaphors is as follows:

Table 2. Thematic Distribution of the Metaphors Students Developed for Turkish

Theme	Metaphor
Finding it Difficult	Fire, Climbing a mountain, Sea, Girl, Ney, Forest, Rock (2), Road
Positive Feeling	My mother language (6), Mother, Love, Baklava, Honey, Crossword, Flower, Çiğ köfte, Chocolate, Very nice, Sea, Bread, Life, Light, My second language (3), First step, Coffee, Snow, Book, Tulip, Turkish delight (2), Mona Lisa Painting, School, Teacher, Panda, My soul, Water, Homeland
Finding it Easy	Water (7), My mother language (2), Arabic lesson, Island,
Finding it Confusing	Sea (5), Cocktail (2), Tone of Istanbul, Ocean, Vegetable salad, Peacock, Rain
Need	Water (15), My Second Language (13), Life (9), Gold (3), My mother language (2), Key (2), Light (2), Telephone (2), Food (2), Lawyer, Part of me, Sensory Organ, Bread, Waking up early, Eye, Glasses, Sun, Dream, Challenge, Breath, School, Money, My right hand, Homeland,
Similarity Between Languages	My mother language (5), Arabic (2), Kurdish

Looking at the table above, it is seen that the metaphors they developed for Turkish are distributed into six different themes: "Finding it Difficult, Positive Feeling, Finding it Easy, Finding it Confusing, Need, Similarity Between Languages". In this context, the table showing the distribution of the relevant metaphors according to the themes as a percentage (%) is as follows:

Table 3: Percentage Distribution of Metaphors by Themes

	Need	Positive Feeling	Finding it Confusing	Finding it Easy	Finding it Difficult	Similarity Between Languages	Total
Total	65	36	12	11	9	8	141
Percentage	%46,09	%25,53	%8,51	%7,80	%6,38	%5,67	%100

Looking at Table 3, 46.09% of the metaphors produced for Turkish were gathered under the theme of need, 25.53% of them are under the theme of positive feeling, 8.51% of them are under the theme of finding it confusing, 7.80% of them are under the theme of finding it easy, 6.38% of them are under the theme of finding it difficult, and 5.67% of them are under the theme of similarity between languages. Within the scope of this finding, it can be said that Syrian students generally perceive

Turkish as a need and have a positive feeling towards Turkish. In this context, the tables showing the relevant themes and the metaphors produced under these themes with their reasons are as follows:

Table 4: Metaphors Produced in the Context of the Theme of Similarity between Languages and Their Reasons

No	Metaphor	Reason of the Metaphor
S14	Arabic	There are many words in Arabic.
S24	My mother language	Some words are the same in Arabic.
S27	My mother language	There are languages in Turkish (Arabic, Persian, English, French).
S28	Kurdish	The words are very similar and the pronunciation is the same.
S29	My mother language	There are many Arabic words in Turkish, but the pronunciation does notice.
S75	My mother language	I love learning Turkish because there are many Arabic words.
S123	My mother language	There are many Arabic words. Turkish is my second mother language.
S234	Arabic	There are many common words between us.

When Table 4 is examined, it is seen that 8 students formed metaphors by establishing similarities between Turkish and other languages. When we look at the metaphors that students chose to indicate the similarity between languages, it will be seen that all of them chose words related to the language. 5 of the students likened Turkish to their mother language, 3 of them formed their metaphors writing directly the language name (Arabic, Kurdish). Except for S27 and S28, 6 students stated that they established similarities due to common words between Turkish and Arabic. Student number S27 established similarity between Turkish and more than one language. Student S28 emphasized that the pronunciation is similar with common words in Turkish and Kurdish. Based on these data, it can be thought that students who explain Turkish by associating it with other languages will learn by making use of this relationship in their language learning process. In this context, it is seen that 5% of the Syrian refugees who learn Turkish within the scope of the research perceive Turkish by associating it with Arabic or other languages.

Table 5. Metaphors Produced in the Context of the Theme of Need and Their Reasons

No	Metaphor	Reason of the Metaphor
S1	Food	Food is very important for life and Turkish is such a thing because it is very difficult to live without language in Turkey.
S2	Water	It is uninhabitable without the Turkish language in Turkey; its importance is like water.
S3	Sensory Organ	If you do not know the Turkish language, you will live a very difficult life.
S5	Life	I cannot live if I do not know Turkish.
S8	Breath	Because we cannot live without the Turkish language in Turkey.
S9	Water	It is important to learn Turkish.
S11	Sun	Turkish is very important to me.
S13	Life	When I learned Turkish then it will be easier to live in Turkey.
S25	Part of me	It helps me communicate with the Turks.
S30	My second language	For talking to people and studying at school and for living.

S32	My second language	I will live here and in a month, I think I will become a Turkish citizen and go to high school here.
S34	My mother language	It is very important for talking and getting along with people and for studying.
S50	My second language	All of our jobs are here and we need Turkish.
S54	Life	Life is hard without language and everything requires language in Turkey.
S56	Telephone	I cannot live without a telephone and I cannot do without Turkish.
S62	Key	There are many foreign words in Turkish, if I learn that, I will know French, English, Arabic and Persian words. All of them will be like keys to foreign languages for me.
S63	My right hand	I cannot do anything without Turkish.
S67	Life	I did not learn Turkish, life will be very difficult.
S68	Light	Turkish can be very useful in our normal life. At school, here.
S71	Life	I live in Turkey.
S72	Life	It will be very easy to read.
S78	My second language	You can work if you know Turkish. You can study in Turkish schools.
S79	Challenge	I live in Turkey and I have to learn Turkish.
S82	My second language	I am going to live in Turkey, go to college, and live in Turkey until the end of my life.
S89	Water	We do not live without water and it is the same thing in Turkey, we cannot live without language.
S91	My second language	It is important even to go to the doctor.
S97	Dream	When I learn Turkish, I will be able to enter university.
S102	Gold	I have met more people.
S103	Gold	It is important because I live in Turkey.
S104	Water	We have to learn because it matters in every way.
S106	My second language	I should learn Turkish well so that I get along well with my Turkish friends and finish my education.
S107	My second language	I need to speak Turkish everywhere.
S109	Water	We cannot live here without it.
S112	Water	It is necessary to understand and talk to Turks.
S114	Water	Water is the source of our life, our life is about their language in Turkey, and we cannot live without learning.
S116	Water	Because without it we cannot live in Turkey.
S119	Life	I will continue my life here.
S122	Waking up early	I do not like but I have to.
S127	My second language	I am now living in Turkey and I will study university here.
S148	Telephone	I carry Turkish with me. I use it wherever I go.
S149	Water	Turkish is essential for speaking and understanding Turks.
S153	My second language	I will continue in Turkey until the end of my life.
S154	My second language	I want to learn Turkish. Because I want to study in school, university, and I want to deal with people.
S157	My second language	Now I am studying and I want to be an engineer.
S160	Water	The Turkish language is necessary for going to live in Turkey.
S164	Water	I must know Turkish to get along with people because I am in Turkey.
S165	Gold	I live here and Turkish is very important to understand Turkish people.
S169	Water	Everyone should learn Turkish because we live here.
S170	My second language	I will always use this language and I will have Turkish friends.
S171	My mother language	It is a means of communicating with people on a daily basis because I live in Turkey.
S176	Bread	I need it every day.

S178	Glasses	I can understand everything in Turkey because I know Turkish.
S180	Key	I will need him so much in my future life.
S181	Water	I need Turkish language to live in Turkey.
S191	Lawyer	It protects me everywhere.
S200	Food	Whether I like it or not, I have to eat, just like Turkish. I have to learn to live.
S204	Eye	It is required for speaking with Turks, universities, hospitals, banks, shopping.
S212	Life	I live in Istanbul; I want to talk to people.
S213	Light	It will pave an easy path in education in the future.
S220	Money	In the market, bank, hospital, university, they all need language.
S226	Water	It is very important because I live in Turkey.
S228	Life	We live in Turkey.
S230	Water	It is very important because I do live in Turkey.
S231	School	I learned Turkish here and got to know the Turks. I learned a lot.
S232	Homeland	We found a house and could work.

When Table 5 is examined, it is seen that 65 metaphors were created for students to see Turkish as a need. In this context, it is possible to say that the majority of Syrian refugees, who learn Turkish, see Turkish as a need. Students' attention to Turkish can be considered as a factor that will contribute positively to their learning.

When the metaphors about the theme of need are examined, it is seen that metaphors are formed with 24 different expressions. 9 of these metaphors are metaphors repeated by more than one student. These are “gold (3), my mother language (2), key (2), life (9), light (2), my second language (13), water (15), telephone (2), food (2)”. The remaining 15 metaphors were used by only one student. The general characteristics of the metaphors associated with the theme of need are that they are formed with expressions that are directly related to human life such as "water, life, breath, food, eye". This situation is important in terms of showing the degree of need.

Another evaluation that can be reached based on the data in Table 5 is that students indicate their needs for different areas of life. For example, while the student number S97 sees Turkish as a need for his education life, the student number S170 sees Turkish as a need for socialization and daily life, and S91 sees Turkish as a need for healthcare services. Student number S8 sees learning Turkish as a need for seeing as the prerequisite for living in Turkey. Based on these data, it can be said that students generally consider Turkish as a need for educational life, socialization, daily life and in order to benefit from educational life.

Table 6. Metaphors Produced in the Context of the Theme of Finding It Confusing and Their Reasons

No	Metaphor	Reason of the Metaphor
S10	Sea	Turkish is a wide and diverse language.
S55	Rain	There are many words, verbs and rules.
S59	Sea	There are various kinds of fish in it. There are various words and rules in Turkish.
S64	Sea	Very complicated.

S81	Sea	There are words in every language.
S99	Sea	There are many different words and verbs in it.
S130	Vegetable Salad	There are many strange words in Turkish. It includes Arabic, French and English. There are words from every country.
S151	Ocean	There is something so complicated inside.
S175	Peacock	There are all colors in the peacock and Turkish is as confusing as it is.
S206	Cocktail	There are words from Arabic, English and many languages in Turkish.
S225	Tone of Istanbul	It is a very complicated language. You live in Istanbul four seasons a day and the language is as confusing as it is.
S233	Cocktail	There are different words in it.

12 metaphors associated with the theme of finding it confusing are seen in Table 6. It is seen that the most metaphor for this theme was created by using the word "sea (5)". However, it is seen that most of the metaphors are composed of "ocean, cocktail (2), vegetable salad, peacock" which contains diversity like the "sea" metaphor. Apart from the metaphors that contain diversity, a student stated that he found Turkish confusing, referring to the uncertainty and variability in the atmosphere of Istanbul. One student also compared Turkish to rain, stating that there are many words and rules in Turkish.

When the reasons for the metaphors are examined, it is seen that the students find Turkish confusing mainly because there are words from different languages in Turkish or because Turkish has many rules. Some students, on the other hand, stated that they find Turkish confusing without stating why they find it confusing.

The fact that students find Turkish confusing can be seen as a factor that will slow down their learning, but the fact that 8% of the students participating in the research have this tendency is positive for the general framework of the research.

Table 7. Metaphors Produced in the Context of the Theme of Finding It Easy and Their Reasons

No	Metaphor	Reason of the Metaphor
S38	My mother language	Turkish is a very easy language.
S51	Water	Turkish is a very easy language.
S58	Water	I can speak very quickly, very easily and fluently.
S101	Water	Turkish language is very easy.
S126	My mother language	We learned very quickly after Arabic because there were not many exceptions.
S132	Water	It is very simple and sweet.
S139	Arabic lesson	Turkish was very easy for me and I learned it right away.
S141	Water	Turkish language is very easy and even Turkish is easier than Arabic.
S142	Water	Turkish is easy for us.
S208	Island	Turkish language is like a small island in the sea. I can learn easily.
S229	Water	Easy and simple language.

Table 7 shows 11 metaphors about finding Turkish easy. In this context, it is seen that 7 students emphasized the easy learning of Turkish by creating metaphors with "water". 3 students in the metaphor they established and 1 student stated that learning Turkish is as easy as learning their own language, referring to their own language. Student number S141 even finds Turkish easier than

Arabic. The fact that students find Turkish easy can be considered as a factor that will affect their learning motivation positively.

Table 8. Metaphors Produced in the Context of the Theme of Positive Feeling and Their Reasons

No	Metaphor	Reason of the Metaphor
S4	Chocolate	I love chocolate very much and I always eat it like Turkish, I always want to learn Turkish.
S19	My mother language	I love Turkey and I am learning it.
S21	Very nice	It is not too hard and I love it.
S40	My mother language	I love Turkish very much like Arabic.
S41	Coffee	If you add sugar to it, it is sweet, if you do not, it is bitter, but it is all kinds of delicious.
S47	My second language	I love Turkish and I want to learn Turkish a lot.
S52	Bread	Always fresh and hot.
S65	Sea	If you go into it, you will see very good things.
S66	My soul	I am learning with love and I love so much.
S69	Life	Learning Turkish is a very good thing.
S84	Turkish delight	So delicious.
S88	Honey	Very sweet.
S108	Water	It is a good language and I love to speak.
S118	School	It improves me.
S129	Çiğ köfte	Çiğ köfte is both hot and delicious. Like this, Turkish is very good.
S131	Turkish delight	A sweet language
S137	My mother language	Turkish is a very good language. Speaking Turkish makes me very happy.
S138	My mother language	I love it so much.
S152	My second language	I live in Turkey and I love Turkish.
S158	My second language	Turkish is a very good language.
S162	Mother	It gave us all that was beautiful.
S172	Book	I learn something every day, so I love Turkish.
S174	Light	It lights my way.
S179	My mother language	I love this language.
S184	Tulip	I see it more beautiful every day like a tulip and it is very close to my heart.
S186	First step	It is very nice to learn Turkish as a new language.
S187	Love	I loved this language.
S190	Flower	It is a beautiful language.
S202	My mother language	I am learning with love.
S203	Homeland	I love it so much.
S205	Crossword	Very entertaining.
S207	Snow	It is beautiful like snow.
S209	Teacher	It teaches me a lot.
S216	Mona Lisa Painting	It sounds interesting and beautiful in all respects.
S217	Baklava	It is very delicious.
S219	Panda	A nice language.

The metaphors of Syrian refugees who learn Turkish are classified under the theme of positive feeling towards Turkish and the reasons of these metaphors are shown in Table 8. 36 metaphors were identified under the theme of positive feeling. Considering the conditions of the students, it is very important that the theme associated with metaphor is the positive feeling after the theme of need. It is known that one of the biggest factors affecting language learning is motivation. Despite the fact that

the students' presence in Turkey due to the essential conditions of them (the refugees), as students' positive feelings towards Turkish language will increase students' motivation to learn languages and make it easier for them to learn Turkish, it is likely to accelerate their adaptation to Turkey.

When the metaphors classified under the theme of positive feeling were examined, firstly, the students made an analogy on language using the metaphors "my mother language" (6) and my second language (3)". In the reasons written by the students, it is seen that they associate Turkish with their mother language because they love Turkish. For example; while student numbered S40 compared Turkish to his/her mother language, in his/her statement, "I love Turkish very much like Arabic." he/she said. Again, the student numbered S202, who compared Turkish to the mother language, stated in his/her explanation that he/she learned Turkish with love.

When the data in Table 8 is examined, another point that strikes the eye is that students create metaphors with foods and drinks such as "chocolate, bread, Turkish delight (2), honey, çığ köfte, baklava, coffee, and water". Students generally formed metaphors through food and drinks, which have an important place in Turkish culture. This shows that the students who make up these metaphors are also interested in Turkish culture and can associate Turkish culture with Turkish. The metaphors of student S41, who likens Turkish to coffee, and student S217, who likens it to baklava, are examples that clearly demonstrate this situation.

Students expressed their positive feelings towards Turkish with different metaphors. Some students made these metaphors using words related to nature such as "flower, sea, light, snow, tulip and panda". Some students also formed their metaphors by using the words "book, school, teacher" about education. Two students made an abstract reference by preferring the words "love and my soul" in their metaphor. In addition to this class approach, metaphors were created with the expressions "mother, crossword, very nice, life, first step and Mona Lisa painting". None of the metaphors associated with the theme of positive feeling are words that can have a negative connotation, such as the words "dark, storm, snake" when first heard. On the contrary, it can be said that all the metaphors used in this theme are words that have positive connotations. This situation is clearly seen in the reasons of the metaphors written by the students.

Table 9: Metaphors Produced in the Context of the Theme of Finding It Difficult and Their Reasons

No	Metaphor	Reason of the Metaphor
S57	Climbing a mountain	Turkish is very difficult.
S60	Ney	It is difficult to pronounce the sounds.
S61	Water	If we do not know how to swim, we will drown.
S105	Fire	We will make a great challenge.
S115	Forest	If you go into the forest, you get lost.
S117	Girl	It is difficult to understand.
S146	Rock	Very heavy.
S147	Rock	Very difficult to remove.
S168	Road	I learned many words in Turkish, there are more words. In a word, Turkish does not end like the road.

As seen in Table 9, 9 metaphors related to finding Turkish difficult have been identified. These metaphors constitute 6% of valid metaphors. The students used the metaphors "fire, climbing a mountain, sea, girl, ney, forest, rock (2), road" to express that they find Turkish difficult. When the prominent metaphors under this theme are examined, it is seen that students with numbers S57, S61, S115, S146, S147 liken Turkish to events that are difficult to surpass in nature. The student numbered S60 emphasizes the difficulty of Turkish pronunciation by saying that it is difficult to pronounce the sounds. On the other hand, the student numbered S117 states that it is difficult to understand Turkish by associating Turkish with girls. Students who form metaphors under this theme find Turkish difficult from different angles. It can be thought that this situation will negatively affect students' motivation towards Turkish, however, as in the theme of finding it confusing, a small part (6%) of the students participating in the research find Turkish difficult. In this context, it can be said that there are not many students who find Turkish difficult.

Discussion, Conclusion and Recommendations

“Successful metaphor comprehension and production involves the ability to understand one entity in terms of another (apparently unrelated) entity.” (Littlemore and Low, 2006: 5). In this context, Syrian refugee students' ability to develop meaningful metaphors for Turkish is above all an indicator of their ability to make sense of the language. In this context, Boylu and Işık (2017: 469) in their study, in which students who learn Turkish as a foreign language determine their perceptions of Turkish through metaphors, stated that the metaphors developed by the students were also in Turkish, students could explain Turkish with a Turkish metaphor without being influenced by their mother languages and cultures, they learned Turkish consciously, their world of thought was not narrow, they could not only speak Turkish as a mold, but also could think in Turkish, they knew the characteristics and language structure of Turkish, and they made a comparison with their mother language. Looking at the metaphors produced by students and their reasons in this study, it can be said that the same features are also valid for Syrian students. This is in line with the opinion of Gabryś-Barker (2017: 80) “metaphors give us a framework for thinking and reflect the way we experience, understand and interact with the world around us”. In other words, it shows that students are aware of both their experiences in the language learning process and how they learn the language, since they produce the correct metaphors for Turkish and explain their metaphors with a logical reason. The next stage of this is an indication that the students can use metaphors in their own speech as well as understanding the speeches that contain metaphors in their daily lives. This situation can be explained by Swain's (2006: 98) ‘*linguaging*’ - “the process of making meaning and shaping knowledge and experience through language” - regarding the use of metaphors in language teaching (cited in Hoang, 2014: 4).

When the results obtained from the research are interpreted together with other studies in the literature, it can be said that Syrian refugees have developed positive metaphors for Turkish as in

Akkaya's (2013) study. Particularly, considering the positive metaphors developed by the students, it is important that some of these metaphors are foods that have an important place in Turkish culture in terms of showing the cultural awareness of these students. As Çalışkan (2009: 92) stated, this is an indicator that culture has an effect on metaphor. In addition, the fact that they produce 141 metaphors showing the perceptions of Syrian young refugees learning Turkish towards Turkish supports the views of Akkaya (2011: 8) that "every metaphor is individual" and Göçer and Tabak (2013: 537) "since each individual has a unique world of thought, the same concept can be attributed to many meanings". When the created metaphors are examined in terms of themes, it is noticed that similar expressions are combined under the same themes. This shows that, as Akkaya (2011) stated, students' perception of Turkish overlaps with each other.

When the findings of the study are evaluated thematically, the fact that there are students who find Turkish both difficult and easy is similar to other studies in the literature (Akkaya, 2013; Boylu and Işık, 2017, Göçen, 2019; Karatay and Kartallıoğlu, 2019).

When an evaluation is made on collecting the metaphors produced by students under the theme of "inter-language relationship", it is understood that the students liken Turkish to their mother language. Similarly, in other studies (Akkaya, 2013, Boylu and Işık, 2017; Göçen, 2019; Erol and Kaya, 2020), the emergence of the same themes is an indication that students compare Turkish with their mother language or other foreign languages they know.

When an evaluation is made on collecting the metaphors produced by the students under the theme of "finding it confusing", it is observed that students attribute this especially to grammar rules, word multiplicity and words taken from other languages and similar reasons. Since these issues are specific to Turkish, similar results have been reached in similar studies on Turkish learners (Karatay and Kartallıoğlu, 2019; Göçen, 2019; Erol and Kaya, 2020).

When an evaluation is made on collecting the metaphors produced by students under the theme of "need", it has been concluded that they see Turkish language as a need to sustain life in Turkey. This is also similar to other studies (Akkaya, 2013; Boylu and Işık, 2017; Karatay and Kartallıoğlu, 2019; Erol and Kaya, 2020). So much so that in the study of Karatay and Kartallıoğlu (2019), it is seen that the metaphors gathered under the "Need to Communicate" category are water and the internet. This is actually a sign that students see Turkish as a need. Likewise, in the study of Erol and Kaya (2020), students' view of grammar as a need reveals the necessity of learning Turkish.

When the 141 metaphors that show the perceptions of Syrian young refugees who learn Turkish in this study are thematically classified, it has been determined that 46% of the students see Turkish as a need, 25% have a positive feeling towards Turkish, 8% find it confusing, 7% find it easy, 6% find it difficult, 5% of them find a similarity between another language and Turkish.

If the themes are examined in terms of their effect on the Turkish learning process, it can be said that the themes of need, positive feeling, finding it easy and similarity between languages have a supportive effect on students' motivation to learn Turkish. On the other hand, it is possible to say that the themes of finding it difficult and finding it confusing have an inhibitory effect on the learning process. From this point of view, it is possible to say that nearly 90% of the students have a supportive perception of their learning processes.

If the metaphors created by the students are examined, it is seen that the metaphors of water (23), my mother language (16), my second language (16), life (10), sea (7), light (4), gold (3), flower (3) are more than 2 repeated metaphors. It is seen that frequently recurring metaphors are classified under different themes. For example; while student numbered S89 compared Turkish to water, he/she stated that he/she could not live without Turkish in Turkey as well as he/she can't live without water. This metaphor is included in the theme of need. Again, using the water metaphor, the student numbered S108 classified this metaphor under the theme of positive feeling, as he stated in his explanation that Turkish is a beautiful language and that he likes to speak this language. Student number S229 is another student who compares Turkish to water. In his/her reason, this metaphor was associated with the theme of finding it easy since this student stated that he/she found Turkish easy. A similar situation was experienced in other frequently repeated metaphors as follows; the "my second language" metaphor is classified under themes of positive feeling and need, the "my mother language" metaphor is in the themes of positive feeling, finding it easy, need and similarity between languages, the "life" metaphor is in the themes of positive feeling and need, the metaphor of "sea" is in the themes of finding it difficult, positive feeling and finding it confusing, the "light" metaphor is in the themes of positive feeling and need, the "gold" metaphor is in the theme of need, and the "flower" metaphor is in the theme of positive feeling. Considering this distribution, it is seen that students can handle Turkish words with different meanings but with a correct association.

When the created metaphors are examined in terms of themes, it is noticed that similar expressions are combined under the same themes. The determinations on this issue are as follows:

The metaphors in the theme of need first consist of expressions that students associate with themselves, such as "my mother language, part of me, sensory organ, eye, life, my second language, breath, my right hand, homeland". In addition, other metaphors under this theme consist of expressions such as "gold, key, bread, sun, light, school, money, water, telephone, food" that every person needs in daily life.

It is possible to examine the metaphors in the theme of positive feeling under two headings. The first of these are metaphors that students can associate with themselves, such as "my mother language, mother, life, first step, teacher, my soul, homeland". The second heading is the food and drinks associated with their flavors; "Baklava, honey, çiğ köfte, chocolate, bread, coffee, Turkish

delight, water". The fact that some of these metaphors are foods that have an important place in Turkish culture is important in terms of showing the cultural awareness of these students.

The metaphors in the theme of finding it confusing are usually created by using expressions that contain or vary in variety such as "sea, tone of Istanbul, cocktail, ocean, vegetable salad, peacock".

It is seen that the metaphors in the theme of finding it easy are usually created by students by likening their mother language or associating it with the easy accessibility of water.

The metaphors in the theme of finding it difficult are usually expressions chosen from nature, emphasizing their compelling aspect. For example; "Fire, climbing a mountain, sea, forest, rock".

The metaphors in the theme of similarity between languages consist of the expressions "my mother language, Arabic, Kurdish".

Based on all these findings, it can be said that Syrian refugee students;

- See the Turkish language as a need to sustain their lives more comfortable and to be able to continue their education in Turkey and explain this with conceptual metaphors that are very important for a person's life,
- Are aware of their own experiences in learning Turkish,
- Learn Turkish by comparing their mother language or other foreign languages they know,
- Learn Turkish with love,
- Have a command of the unique structure of Turkish and explain this with conceptual metaphors that they find confusing in their lives.
- Do not have enough knowledge of Turkish to produce metaphors occasionally.
- Based on the above information, findings and comments, in the relevant literature, studies can be made to determine;
- How effective language teaching with metaphors will be,
- Turkish learners' perceptions of language skills through metaphors,
- Students' perceptions of Turkish and Turkey together.

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Characteristics of Children’s Oral Texts in terms of Coherence and Cohesion

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Abstract

The purpose of this study was to examine the characteristics of coherence and cohesion in the oral texts of children between the ages of 60 to 72 months. In the study, a survey method in a quantitative research approach was adopted, and a total of 110 preschoolers were included as participants. The data of the study were obtained from the oral texts taken from the conversations during the interviews with the children. Oral texts consisting of at least eight sentences were analyzed by using the Text Evaluation Form and a rubric. The coherence- and cohesion-related qualities of the spoken texts were evaluated by two experts. The quantitative data were analyzed through descriptive and inferential statistics. Descriptive statistics were calculated as frequencies and percentages to present the levels of the oral texts in terms of cohesion and coherence. In addition, independent sample t-test and one-way analysis of variance were computed as inferential statistics to determine whether scores for cohesion and coherence differed significantly based on the child’s gender, socioeconomic status, and the duration of the early childhood education. First, the results of the analyses revealed that the oral texts were acceptable and sufficient with respect to the means of cohesion, whereas they were inadequate and unacceptable in terms of coherence. Second, it was found that the cohesion device that children were the most successful was the ellipsis. Third, the results also indicated that the levels of cohesion of the oral texts displayed a significant difference regarding gender and SES, while they did not differ depending on the duration of preschool education. Moreover, the levels of coherence showed no significant difference in terms of gender, SES, and the duration of early childhood education. In conclusion, in the study, it was determined that the oral texts of the children were more appropriate to the standard language in terms of cohesion compared to coherence.

Keywords: Coherence, Cohesion, Oral Text, Speaking, Early Childhood Education

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Introduction

Language acquisition takes place through distinct stages. The language acquisition process, which starts with the hearing of linguistic voices from the environment, continues until it reaches a level to communicate with other people. In fact, the primary function of language as a natural tool is to communicate (Clark, 2000; Owens, 2012). Since communication takes place mutually between at least two individuals, the language acquired through listening is expected to become operational through speech over time. When children produce a communicative value through language, it can be thought to have spoken. The communicative value of language is estimated through the texts produced in different lengths. As Beaugrande and Dressler (1987) stated, communication takes place with texts. For this reason, to what extent the sentences produced by children in the process of first language acquisition have textual quality is an important aspect of language acquisition.

According to Halliday and Hasan (1976), a text is the collection of written or spoken sentences that forms a unified structure. However, not every collection of sentences forms a text. That is, the “stack” of sentences must meet certain criteria in order to be regarded as a text. These textuality criteria are *cohesion*, *coherence*, *intentionality*, *acceptability*, *informativity*, *situationality*, and *intertextuality* (Beaugrande & Dressler, 1981). While coherence and cohesion refer to internal criteria, others are external criteria. The cohesion referring to the grammatical harmony between the elements of the text includes linguistic devices such as *reference*, *substitution*, *ellipsis*, and *conjunction*. Besides, coherence means the logical and semantic relations of large parts of the text. In this way, the text emerges as a uniformed structure reflecting a main idea.

Cohesion is the semantic relationship of one item in the text with another item that is important in the meaning-construction of a text. The appearance of semantic relationships among the sentences of the text in the grammatical plane reflects the cohesion (Beaugrande & Dressler, 1981). The relations among the sentences constructed by the cohesion running on the grammatical plane form the discourse (Gudwinsky, 1976). Halliday and Hasan (1976) defined this term as the semantic relation between an item and another in the text that is important in the meaning of the text. The interpretation of an item in the text comes true by its relation to other items. Cohesion, which constructs the grammatical and lexical relations of the text, functions on grammatical and semantic planes (Bex, 1996).

The devices that provide the formation of cohesion establish some relations among the units of the text and semantically link the propositions to each other (Schiffrin, 1988). Cohesion includes five particular devices that form associations in the text (Halliday & Hasan, 1976). As mentioned above, the grammatical cohesion includes reference, substitution, ellipsis, and conjunction. In addition to these devices, the lexical cohesion is related to the harmony among the words in the text. According to Halliday and Hasan (1976), reference, substitution, and ellipsis are considered as the parts of the

grammatical cohesion. On the other hand, conjunctions are considered as structures that combine grammatical and lexical features. In this study, the conjunctions are dealt with only the grammatical correlation dimension.

One of the grammatical cohesion devices is *reference* which is the re-expression of a unit elsewhere in one part of the text (Dilidüzgün, 2008). The use of the reference, which has two forms (i.e., exophoric and endorphoric reference), is provided with various pronouns, accusatives, possessives, and personal endings in Turkish (Keçik & Subaşı, 2004; Uzun, 1995; 2013). The linearity and continuity of the text are maintained by re-expression of the information that constitutes the subject through the reference devices (Onursal, 2003). *Substitution*, which is another cohesion device, occurs when a unit used in the text is expressed with another linguistic unit in subsequent sentence(s). A substitution device may substitute for nouns, verbs, or sentences which determines the type of the substitution (Halliday & Hasan, 1976; Uzun, 1995). *Ellipsis* is another cohesion device. Ellipsis, which occurs by omitting a unit from the text, are comprehended by inference. Ellipsis should not cause any change in meaning (Günay, 2003). When a person says, "*Dün kütüphaneden aldım* (I bought it from the library yesterday)" by referring to a book makes a certain language economy by using ellipsis (Uzun, 2013). Ellipsis also prevents unnecessary repetitions (Külebi, 1990). The types of ellipsis are nominal, verbal, and clausal. That is, ellipsis might be with the omission of noun, action, or clause (Halliday & Hasan, 1976). The last cohesion device that this study focused on is *conjunctions* which are linguistic tools that connect sentences and phrases to each other to provide certain semantic relationships. Conjunctions increasing the cohesion quality of the text, and making it more holistic, create a semantic quality among the linguistic units. Unlike other cohesion devices, conjunctions perform their functions indirectly (Halliday & Hasan, 1976). In Turkish, linguistic units used as conjunctions are connectives and gerunds.

In addition to the cohesion that characterizes grammatical relationships, another criterion which establishes semantic and logical relationships to make a collection of sentences into a text is *coherence*. Coherence is achieved through the relationships among sentences or larger parts of the text. By means of this criterion, harmony is achieved by creating semantic-logical relations among the concepts in the text (Beaugrande & Dressler, 1981; Keçik & Subaşı, 2004). This harmony ensures that sentences and large parts are patterned and repeated within each other. Thus, the receiver of the text can move from one sentence to another without any semantic conflict; moreover, s/he can perceive the sentences not as a stack that comes together randomly, but as parts of the whole (McCrimmon & Miller, 1973). That is, coherence is the result of the associations among concepts gathered around the main idea (Beaugrande & Dressler, 1981). The grammatical relationships established with cohesion are completed with the logical relations that coherence provides.

There are two types of coherence: *local* and *global* (van Dijk & Kintsch, 1983). Local coherence is related to the microstructure of the text, whereas global coherence is related to the macrostructure. Besides, while the microstructure refers to the consecutive sentences in the texts, the macrostructure refers to the parts of the text presented with the content scheme that presents the topics and sub-topics (Uzun, 2013). Local coherence connects successive sentences or smaller units semantically and logically while global coherence establishes the same relationship among the paragraphs, the chapters, and the larger parts of the text. In other words, global coherence functions in the broader area. A text in which global coherence is achieved, discourse referents, individuals and objects are lined up concerning some main referents, and the sequence of actions is organized according to the main actions (van Dijk & Kintsch, 1983). This arrangement makes it easier for the listener or reader to comprehend the text.

Cohesion and coherence are crucial in creating text that is the basic unit of communication. In the first language acquisition process, children are expected to use the language to produce texts that have communicative value. A healthy child needs to acquire the language system by the age of four (Lust, 2006). After the age of four, textual criteria that children's use of language should meet affect the communication abilities of children directly. Therefore, the sufficiency level that language acquisition is expected to reach can be observed through the texts creation of children (Justice, et al., 2010; Pankratz et al., 2007). The level of language acquisition of children becomes more meaningful with their textual acquisitions. Furthermore, the level of textual acquisition in children is reflected in their narratives.

The ability of children to produce narratives and texts takes place through various stages. Oral texts with various deficiencies and errors, in the beginning, have problems in terms of cohesion and coherence. This situation is related to the nature of language acquisition. How or at what level children acquire the language can be monitored through narrative skills. Bloome et al. (2003) describe the development of narrative skills as creating a good story and conveying it, and gaining certain skills in telling experiences. The acquisition of these skills is significantly related to establishing relationships of cohesion and consistency. Accordingly, children who have reached the process of forming sentences are expected to use the linguistic devices that determine the criteria for textuality correctly and effectively while connecting the sentences they produce. Thus, they are expected to create cohesive and coherent oral texts.

When communicating, children first produce texts concerning the experienced events in their lives. Around the age of three, they have the ability to tell the experiences orally such as going to the supermarket, eating somewhere, or various similar events (Hudson & Saphiro, 1991). Around the age of four, it is observed that the events are transferred in the order of time (Nakano & Nagasaki, 2012). This development can be considered as an increase in the level of cohesion and coherence of the texts.

Children between the ages of five and six begin to construct more abstract and complex narratives (Hudson & Saphiro, 1991). They can understand the causal and intentional relationships among events and actions (Nakano & Nagasaki, 2012). Mardell (1991) emphasizes that as children grow up and develop, they are more sensitive to the needs of the audience and make the beginning and ending parts of their narratives more explicit. The consciousness about the beginning and ending parts of the narration can be considered as a sign that the text production has started to become intuitively competent.

As children grow up, they begin to use references and conjunctions more frequently in their oral texts (Fivush et al., 1995; Özcan, 1993; Van Dam, 2010). For example, Saphiro (1990) reported that first graders create texts that include more cohesion devices than preschoolers. It was also found that children learning how to read and write use mostly reference devices and conjunctions in oral texts compared to written texts (Lee et al., 2013).

The fact that the texts created by children in oral communication reach a level similar to those by adults in terms of cohesion and coherence can be considered as an essential indicator of language acquisition level and quality. Acquiring the ability to create text at an early age can contribute to achieve linguistic competence in later periods of life. As a result, determining the level of the acquisition of preschoolers can provide more qualified planning of language activities in preschool environments. For this reason, determining children's competence and identifying the deficiencies in oral texts are important points. In this study, the oral texts of the children between 60-72 months who are in the process of the acquisition of Turkish as their first language were examined in terms of cohesion and coherence. Accordingly, this study sought answers to the following questions:

1. What are the characteristics of the oral texts of the children in terms of coherence?
2. What are the characteristics of the oral texts of the children in terms of cohesion?
3. Do the characteristics of the oral texts of the children in terms of coherence differ significantly based on gender, socioeconomic status (SES), and the duration of early childhood education?
4. Do the characteristics of the oral texts of the children in terms of cohesion differ significantly based on gender, socioeconomic status (SES), and the duration of early childhood education?

Method

Research Design

This study is descriptive in nature and adopts the survey method with which the characteristics of certain groups can be determined, and these properties can be compared, classified, and analyzed

according to various variables (Cohen et al., 2007). Correspondingly, in this study, the coherence- and cohesion-related characteristics of children's oral texts were determined to present the textual quality. In addition, it was also investigated that whether the quality of texts produced by children differs based on some child-related variables (i.e., gender, socioeconomic status (SES), and the duration of early childhood education).

Participants

The participants of the research consisted of 110 preschoolers enrolled in various preschools in Antalya, Turkey. The participants, whose age range was 60-72 months old, included 61 girls and 49 boys. Depending on the region that children live, three levels of socioeconomic status were determined. Accordingly, the 40 of the participants were in the low, 35 in the middle, and 35 in the high SES groups. The selection of the children participating in the research was made based on the stratified sampling technique. This sampling method was preferred to provide heterogeneity among the specified groups (Kumar, 2014). Thus, children with different characteristics could get involved in the study. Attention was paid to ensure that the gender and SES level distributions of the participants were close to each other.

Data Collection Instruments and Procedure

First, the Text Evaluation Form created in line with the expert opinions was used in the analysis of verbal texts obtained from children. With the help of this form, the oral texts of the children were evaluated in terms of cohesion and coherence. Cohesion-related part of the form included evaluation of reference, substitution, ellipsis, and conjunctions of the texts, whereas the coherence-related part included evaluation of local and global coherence of the texts.

Second, a rubric was developed to evaluate children's oral texts. A rubric is a measurement tool used for the evaluation of the criteria that a product or person is expected to meet through the predetermined levels or standard criteria (Lodico et al., 2006). The development process of this rubric began with the literature review to determine the textuality criteria. In this process, among the textuality criteria, the cohesion and coherence which are related to the internal features were focused. In line with these two criteria, the draft form of the rubric was created. Six experts were consulted to ensure the content and face validity of the rubric. After the corrections, depending on the suggestions of experts, a pilot study was carried out. For the reliability of the instrument, the agreement between the two raters was examined. The reliability coefficient was calculated using the formula [the number of agreements / (the number of agreements + the number of disagreements) x 100] specified by Milles and Huberman (2002). According to this calculation, the intercoder reliability coefficient was found as .94. After these processes, the final form of the instrument was created.

The data of the research were collected through face to face interviews with the children. Before the interviews, the consent forms were sent to the parents of children to inform them about the study and take their permission to interview with their children. During the interviews, the necessary conditions were created for children to express themselves comfortably, and they were allowed to speak the topics that make sense for them. No intervention was made during their speech. The interviews, which took place in the form of conversations, were recorded. After the interviews, the conversations were transcribed by the researchers to be analyzed. Rather than the whole oral texts of the children, their oral texts consisting of at least eight sentences and having integrity were analyzed by using the Text Evaluation Form and the rubric.

Data Analysis

After the data collection process, the number of data collected from 145 children decreased to 110 after the elimination of inappropriate ones. That is, the conversations that do not include the text or texts with at least eight sentences were excluded from the data set. The data decided to be included in the data analysis were analyzed terms of the assessment items the Text Evaluation Form. Besides, using the rubric, the narratives of the children were assessed whether they have textual quality. For this, the cohesion- and coherence-related characteristics of texts were examined. First, oral texts were examined in terms of reference, substitution, ellipsis, and conjunctions depending on the rubric. Second, the texts were scored in terms of the coherence based on the criteria of coherence specified in the rubric. In addition, the frequency of appropriate use of reference, substitution, ellipsis, and conjunctions as in the standard language and deviations from standard language were determined.

Only pronouns considered in the evaluation of reference cohesion devices. References regarding conjugation and possessives suffixes were not included in the scope of evaluation in the study. The references made in Turkish with suffixes are the structures that appear unintentionally as a requirement of the language, and these structures are used substantially correct. As a result, because the examination of the suffixes as the reference devices might cause the uncertainty in terms of the evaluation of the results regarding the reference, the reference made with the suffixes were excluded from the study.

Following the initial analysis of cohesion, it was seen that the data did not distribute normally and revealed a negatively skewed distribution. For this reason, the data were re-evaluated over a quarter deviation by calculating the ratio of deviations from standard language to total usage. Whether the ratios obtained as a result of the evaluation were in the first and last quartiles were examined. Data in the first quartile were considered as *sufficient*, data in the last quartile were considered as *insufficient* and the data between these two groups were considered as *acceptable*. The normality test was conducted with the obtained depending on this classification. As a result of this process, it was seen that the data revealed a normal distribution. For this reason, parametric tests were conducted in

the data analysis. Descriptive statistics were calculated as frequencies and percentages to present the levels of the oral texts in terms of cohesion and coherence while independent sample t-test and one-way analysis of variance (ANOVA) were computed as inferential statistics to determine whether scores for cohesion and coherence differed considerably based on the child's gender, SES, and the duration of the early childhood education.

Results

In the first research question, it was aimed to evaluate the oral texts in terms of global and local coherence. The descriptive statistics in relation to the global and local coherence were presented in Tables 1 and 2:

Table 1. Global coherence levels of the texts

Global Coherence	f	%
Sufficient	2	1.82
Acceptable	33	30.00
Insufficient	75	68.18
Total	110	100.00

As seen in Table 1, the oral texts of children were found insufficient at most (68.18%, $f = 75$), followed by acceptable (30.00%, $f = 33$) and sufficient (1.82%, $f = 2$).

Table 2. Local coherence levels of the texts

Local coherence	f	%
Sufficient	3	2.73
Acceptable	52	47.27
Insufficient	55	50.00
Total	110	100.00

Similar to global coherence, Table 2 reveals that the levels of oral texts of children in terms of local coherence were found insufficient at most (50%). The frequency of the texts evaluated as acceptable (47.27%) was very close to the frequency of insufficient texts. Again, similar to the global coherence, the levels of the local coherence were considered as sufficient (1.82%).

In relations to the second research questions, the results of the descriptive analyses regarding the frequency of cohesion devices that used in the texts (i.e., reference, substitution, ellipsis, and conjunction) were presented in Table 3:

Table 3. Frequency of cohesion devices in the texts

Cohesion devices	Appropriate use		Inappropriate use		Total	
	f	%	f	%	f	%
Reference	434	68.67	198	31.33	632	100.00
Ellipsis	1116	80.29	274	19.71	1390	100.00
Substitution	366	65.83	190	34.17	556	100.00

Conjunction	604	68.87	273	31.13	877	100.00
Total	2520		935		3455	

As depicted in Table 3, 434 (68.67%) of the total 632 reference devices were used appropriately in the texts of children, whereas 198 (31.33%) of these uses were used inappropriately. In terms of ellipsis, 1116 (80.29%) of a total of 1390 uses were found to appropriate, but 274 (19.71%) of them were inappropriate. In addition, 366 (65.83%) of 556 substitutions were used appropriately, while 190 (34.17%) of them were used inappropriately. Lastly, in terms of conjunctions, 604 (68.87%) of 877 uses were appropriate 273 (31.13%) of conjunctions were used inappropriately.

The results of evaluating the sufficiency in the use of devices that provide cohesion were presented in Table 4, Table 5, Table 6, and Table 7:

Table 4. Reference device levels of the texts

Reference	f	%
Sufficient	58	52.73
Acceptable	36	32.73
Insufficient	16	14.54
Total	110	100.00

As seen in Table 4, the use of reference in the oral texts of children was found sufficient at most (52.73%, f = 58), followed by acceptable (32.73%, f = 36) and insufficient (14.54%, f=16).

Table 5. Ellipsis device levels of the texts

Ellipsis	f	%
Sufficient	79	71.82
Acceptable	23	20.91
Insufficient	8	7.27
Total	110	100.00

Table 5 indicates that the use of the ellipsis in the children's texts was sufficient to a large extent (71.82%), followed by acceptable (20.91%), and insufficient uses (7.27%).

Table 6. Substitution device levels of the texts

Substitution	f	%
Sufficient	49	44.55
Acceptable	39	35.45
Insufficient	22	20.00
Total	110	100.00

Table 6 shows that the use of substitution in the oral texts of children was found sufficient at most (44.55%), followed by acceptable (35.45%) and insufficient (20.00%).

Table 7. Conjunction device levels of the texts

Conjunction	f	%
Sufficient	60	54.55
Acceptable	38	34.55
Insufficient	12	10.90
Total	110	100.00

As depicted in Table 7, the use of conjunctions in the oral texts of children was found sufficient at most (54.55%), followed by acceptable (34.55%) and insufficient (10.90%).

The third research question of the study addressed whether the coherence levels of the oral texts of the children differed based on gender, SES, and the duration of early childhood education. The results of the independent sample t-test and ANOVAs were conducted to provide answers for this research question were depicted in Table 8, Table 9, and Table 10.

Table 8. Results of the t-test for levels of coherence in terms of gender

Variable	n	M	SD	t	p
Gender					
<i>Girl</i>	61	.95	1.01	1.08	.281
Boy	49	.75	0.85		
Total	110				

As seen in Table 8, the levels of coherence for the oral texts of the children did not differ significantly by gender, $t(108) = 1.08$, $p = .281$.

Table 9. Results of ANOVA for coherence levels in terms of SES

	df	SS	MS	F	p
Between groups	2	2.808	1.404	1.596	.208
Within groups	107	94.146	.880		
Total	109	96.955			

Table 9 reveals that there was no significant difference in terms of SES between the mean scores for the coherence of the oral texts of the children, $F(2, 107) = 1.60$, $p = .208$.

Table 10. Results of ANOVA for coherence levels in terms of the duration of the early childhood education

	df	SS	MS	F	p
Between groups	2	2.929	1.464	1.688	.191
Within groups	87	75.471	.867		
Total	89	78.400			

Table 10 shows that there was no significant difference in terms of the duration of the early childhood education between the mean scores for the coherence of the oral texts of the children, $F(2, 87) = 1.688$, $p = .191$.

The fourth research question of the study focused on determining whether the cohesion levels of the oral texts of the children differed based on gender, SES, and the duration of early childhood education. The results of the independent sample t-test and ANOVAs were conducted to provide answers for this research question were depicted in Table 11, Table 12, and Table 13.

Table 11. Results of the t-test for levels of cohesion in terms of gender

Variable	n	M	SD	t	p
Gender					
Girl	61	6.16	1.31	2.10	.038*
Boy	49	5.63	1.33		
Total	110				

*p<.05

As seen in Table 11, the levels of cohesion for the oral texts of the children differed significantly based on gender, $t(108) = 2.10, p = .038$. Accordingly, the mean scores of girls ($M = 6.16, SD = 1.31$) was higher than the mean scores of boys ($M = 5.63, SD = 1.33$), revealing girls produced more sufficient texts than boys in terms of cohesion devices.

Table 12. Results of ANOVA for cohesion levels in terms of the duration of SES

	df	SS	MS	F	p
Between groups	2	15.986	7.993	4.766	.010*
Within groups	107	179.432	1.677		
Total	109	195.418			

*p<.05

As depicted in Table 12, the mean scores for cohesion devices revealed a significant difference in terms of the SES of the children, $F(2, 107) = 4.766, p = .010$. In order to determine the source of the difference, the Tukey test was conducted. As a result, it was observed that the mean scores of the children at the low SES ($M = 6.23, SD = 1.17$) and the average scores of the children at the high SES ($M = 6.14, SD = 1.38$) were higher than the average scores of the participants at the middle socioeconomic level ($M = 5.37, SD = 1.35$). The calculated effect size for this difference was determined as .08, revealing a small effect size.

Table 13. Results of ANOVA for cohesion levels in terms of the duration of the early childhood education

	df	SS	MS	F	p
Between groups	2	6.239	3.119	1.871	.160
Within groups	87	145.050	1.667		
Total	89	151.289			

Table 13 reveals that there was no significant difference in terms of the duration of the early childhood education between the mean scores for the cohesion of the oral texts of the children, $F(2, 87)=1.871, p = .160$.

Discussion, Conclusion, and Recommendations

In the study, the quality and the characteristics of the oral texts of children between 60-72 months were discussed in terms of coherence and cohesion. Considering the results regarding coherence, it was determined that there were some problems in the oral texts of the children. The global dimension of the coherence, which is defined as the logical associations among the large parts of the text (van Dijk, 1977), was evaluated on the basis of the presence of introduction, development, and conclusion sections in the oral texts produced by the children. Accordingly, it was seen that more than half of the participants' oral texts were problematic in terms of global coherence. In light of this result, it might be concluded that the majority of the children in the study could not convey a certain personal experience within the main idea, except few participants who met this criterion.

There are other studies reporting that textual acquisition, which is an advanced level of first language acquisition, is immature in terms of coherence. For instance, Bayat and Yurdakul (2014) found that introduction, development, and conclusion of the texts were not presented explicitly in the oral texts of the preschool children. Similarly, in the study of Silva et al. (2014), coherence was found to be problematic in children's stories. The results of the current study also provided similar evidence regarding the problematic use of coherence in the text production of children. On the other hand, some other research studies reported that older children are more competent to create coherent texts. To illustrate, Gwynn (2007) reported that eight-year-olds could create more coherent texts than four- and six-year-olds. In addition, Saphiro (1990) found that first-year students created texts including introduction and conclusion parts in their stories more than preschoolers. These results and the results of the current study may reveal that coherence is developed through the progress of language acquisition with age.

The conclusion reached in terms of global coherence is also valid for the local coherence. That is, half of the oral texts of participants did not meet the criteria of local coherence. In the current study, local coherence was evaluated, especially on the relations between consecutive sentences. The coherence of consecutive sentences is ensured through the continuity of an item of the previous proposition in the latter (van Dijk & Kintsch, 1983). The inability of the children to achieve coherence in their texts was based on the lack of correlation between the sentences they constructed consecutively. Despite various disconnections, the meaning can be understood to a certain extent in the texts of children, which were evaluated as acceptable. However, an exact meaning could not be reached in the oral text of half of the participants. This result is an indicator that the children in the study were not able to construct oral texts within the local coherence. Karmiloff-Smith (1985) stated that reference devices, which contribute relatively to the formation of local coherence, become active around the age of 6-7. Therefore, it might be proposed that the children in this study have not yet been able to overcome incompetence in constructing locally coherent texts.

The incompetence of the children in the first language acquisition process in terms of local coherence means that they create a collection of sentences without making connections among these sentences. Lack of this competence inhibits from reaching the main idea (Grabe, 1984). In a text, each sentence should contain information from previous sentences (van Dijk, 1977). The continuity of information contributes to the construction of the main idea. For this, linguistic production has to be purposeful and conscious. The insufficient levels of local coherence might result from not determining the main idea. In addition, if it was determined, insufficiency might be due to losing it in the flow of speech or not being able to monitor its linguistic production consciously. The incapability of participants to achieve local coherence may be related to the language acquisition processes that had not reached to this level.

The cohesion devices used for grammatical relations presented a different profile for the oral texts of the participants. Although there were inappropriate uses of the reference device, this cohesion device was used appropriately to a large extent in the oral texts of children. The reference means the repetition of a unit mentioned in a previous part of the text through the text (Dilidüzgün, 2008; Halliday & Hasan, 1976). Reference is made with pronouns and some affixes in the Turkish language (Keçik & Subaşı, 2004). In particular, the pronouns should be used properly, and what they refer to should be clear. In this research, the reference was evaluated only on the basis of pronouns. Accordingly, the children were able to use two-thirds of the references appropriately. However, in some studies, it is stated that problematic uses related to reference decrease at the ages between 9 and 12 (Ripich & Griffin, 1988; Bamberg, 1987). The participants of the current study can be considered to be at an expected level for their age group.

References that develop the patterns of text can not be considered detached from context (Dilidüzgün, 2008). The reference is interpreted through the item that is referred to in the context. This requires context sensitivity. Children's problematic uses of reference devices may also be related to the lack of contextual information. That is, contextual and grammatical information is effective in the use of reference devices. In a study related to the reference, it was found that children at the age of 5 years had 39 % proper use, while children at the age of 6 years had 50 % proper use (Demir, 2009). This level is lower than the level of appropriate use in this study. Therefore, it can be said that the appropriate usage level of the reference device may differ in different age groups. In addition, Özcan's (1993) study determined that three- and five-year-olds were able to use reference devices significantly. Based on the results of these types of research studies, Dodsworth (1990) emphasizes that problematic uses of cohesion devices decrease with age.

Considering the use of ellipsis in the oral texts of children in this study, it is obvious that children are more successful at the use of ellipsis in their texts. The proportion of proper use of ellipsis was found at 80 %. The ellipsis occurs when an item is not told in the context known to those involved

in communication (Günay, 2003). The ellipsis enables individuals to use language more economically (Uzun, 2013). Because unnecessary repetition of the same units in the text can make the meaning of narrative ambiguous, the ellipsis can enhance the transparency of the text. In Turkish, ellipsis structures are created with finite verbs that function as a predicate, possessive elements, predicative elements in transitive verbs, and the adverbs that require predicative element (Uzun, 2013). The first two of these are made with affixes. For example, in a sentence like "*Bir bisiklet aldım.* (I bought a bicycle)" the subject of "Ben (I)" was omitted because there is a personal ending that refers to the subject of the sentence in the predicate. Since Turkish has a language structure that works with suffixes, ellipsis structures appear naturally in some cases. In other words, if the personal ending (i.e., -m) at the end of the predicate in the sentence presented at the example is not used, the sentence becomes grammatically incorrect. Therefore, the use of ellipsis in Turkish is observed in the sentences as a requirement of the language system to some extent.

In comparison with the ellipsis, children showed less success in the substitutions. Only half of the oral texts had appropriate use of the substitutions. Approximately 20 % of the participants had significant problems with the substitutions. The substitutions are highly functional in ensuring the fluency of the text. The deterioration of fluency usually results from the unnecessary repetition of various words or phrases (Kuru, 2013; Sucuoğlu & Kargin, 2010). The substitution avoids this problem since linguistic units because of expressing a unit with other words in the flowing parts of the text. According to Peterson and Dodsworth (1991), children begin to use substitutions and ellipsis in their speech, starting from the age of 2-3. Baltaxe and D'Angiola (1992), on the other hand, stated that preschool children with normal development have the most problematic use in reference and substitution devices. In this research, the problems seen in the use of substitutions are consistent with the results of the aforementioned research studies.

The last device of correlation focused in the study is the conjunctions. The children's use of the conjunctions was examined on the situations that they did not use where conjunctions are necessary. Accordingly, it was determined that almost half of the participants produced problematic texts in terms of conjunctions, meaning relations between propositions in significant number of the texts produced by the children could not be established. It was observed that participants are more successful in temporal and causality conjunctions, whereas they had some problems in comparative and additive conjunctions. In a study conducted by Bayat et al. (2015), it was also found that children at the age group of five had problems in comparative and additive conjunctions. According to Ege (2006), the use of conjunctions between the ages of 3 and 7 is constantly increasing, and this increase is significantly apparent between the ages of 5 and 7. In contrast, only half of the participants of this study were able to use conjunctions explicitly.

In the study, it was also examined whether the coherence and cohesion levels of oral texts of the children differ based on gender, SES, and the duration of early childhood education. First, the results of the study revealed that the levels of coherence in the oral texts of the participants did not differ statistically and significantly based on gender, SES, and the duration of the early childhood education. Second, the results also indicated that the participants' mean scores differed significantly in terms of gender and socioeconomic level, but there was no statistically significant difference in terms of the duration of early childhood education.

Previous studies found that gender is an effective variable in language acquisition. In his research, Öztürk (1995) determined that girls are more successful than boys at the same age in language acquisition. Similarly, girls were found to be more successful than boys in terms of speech length and grammatical appropriateness of their sentences (Seçmiş, 1996; Taner, 2003). Contrary to these research studies, there were also other studies indicating that there is no relationship between gender and first tongue acquisition (Temel, 2000; Yıldırım, 2008). The result obtained from this research revealed that the gender of the participants did not produce a significant effect on the levels of coherence. On the other hand, the current study found that girls were more successful than boys in the use of cohesion devices. The contradiction between results of coherence and cohesion in terms of the effect of the gender might result from the grammar-based construction of cohesion, i.e., the relevancy of cohesion with the grammatical characteristics of the text. In other words, cohesion functions at the surface structure of the text and easier, whereas coherence requires deeper and more difficult to be constructed in the text. Therefore, considering the developmental characteristics of the participants, it can be said that the coherence could not sufficiently be provided by both genders, but girls have successfully acquired and used the cohesion devices that can be acquired and used more quickly.

The SES is also a variable that might affect first language acquisition in various aspects. There are studies reporting that competence in language acquisition increases as the socioeconomic level increases (Ünal, 2007; Erkan, 1990; İpek, 2006). However, different results were obtained in terms of the effect of SES on coherence and cohesion in the current research. SES did not make a difference in the mean scores of the participants in terms of coherence. The reason for this may be attributed to an advanced level of coherence in the first acquisition process. The 60-72 month-old participants of this research are not yet competent in terms of coherence. On the other hand, the children at high and lower SES were found to be more successful in using cohesion devices than those at the middle level. This result may be related to lower and upper-level children getting more qualified language inputs. This situation is considered to suppress the effect of socioeconomic levels.

Lastly, it was found that the duration of the early childhood education did not affect the levels of coherence and cohesion. However, previous research studies reported that children who had early

childhood education are more successful in language than those who did not have this education. Moreover, some other studies also indicated that children who had early childhood education for longer are more competent in language than those had shorter (Erdoğan et al., 2005; Öztürk, 1995; Taner, 2003; Taner & Başal, 2005; Şengül, 2007). However, these studies focused on non-textual units of language use. The difference in the results obtained might result from this.

Depending on the results of the study, it was concluded that the oral texts of the children were closer to the standard language in terms of cohesion, and they had some problems in terms of coherence. It is recommended to repeat similar studies to confirm these results. In addition, various studies can be conducted to determine the levels of lexical cohesion that were not addressed in this study.

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Perceptions of Parents Having Children in Preschool Level Regarding Their Children's Screen Use

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Abstract

The perception of parents on children's screen use is expected to affect their children's screen usage and understanding the perception of parents about this subject can help in the preparation of roadmaps to show how children should use screen. The aim of this study is examine to the perception of the parents about positive and negative effects of screen use on their children, and to compare children's actual screen use and the ideal screen use proposed by parents. The data conducting an interview one of the method of qualitative research. Participants comprised of 25 parents while 20 of them were mother, 5 of them were father, age range is between 26 to 43, have high-education and with child in preschool level. Although parents reported both positive and negative perceptions about screen usage the views that screen use adversely affects children are more distinct. While parents see knowledge / skills acquisition as the most positive side of the screen; the most downside is that they see the child's social isolation. In addition, there are remarkable differences between the use of screen that parents see as ideal for their children and the current screen usage of children.

Keywords: Preschool, Parents' perceptions, Screen use

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Introduction

Use of screen (TV, smartphone, tablet, computer) has increased gradually from an early age and screen has become an important part of the lives of today's children. The use of interactive screen, such as smartphones and tablets, by young children is increasing rapidly. However, research on the impact of portable and instantly accessible screen on learning, behavior and family dynamics is far behind the adoption of these technologies. At this point, as the potential impact of screen on children may be more pronounced in preschool level, it is important to develop suggestions for screen use of these children (Radesky et al., 2015). It can be said that today the use of screen is a phenomenon which should be examined starting from infancy. A study on infants aged 0-3 indicated that 71% of the infants had the access to touch-screen devices for about 15 minutes a day, and 32.8% of them had the ability to unlock and to identify specific touch-screen features (Ahearne et al., 2016). In the study on the infants in Australia, Chandra et al. (2016) revealed that 40% of the infants are exposed to screen for more than two hours per day. These findings point out that screen have a place in the lives of today's infants.

Given the significance of pre-school period as well as of infancy period in the emotional, mental, physical, psychomotor and social development of children, it has become even more important to identify screen use habits of these children. At this point, studies conducted in America, it was determined that 3-4 years old children used an average of 5.1 hours per day (Webster et al., 2019), whereas 3-7 years old girls used nearly seven hours; boys used eight hours screens weekly (Sanders et al., 2016). Another study performed with the parents of 4-year-old children in Switzerland demonstrated that children engaged in 150 minutes and 100 minutes of screen-time on weekend days and weekdays, respectively; further, boys engage in more screen-time compared to girls (Berglund & Tynelius, 2017).). In addition, a study showing that Australian children use an average of 17.86 hours of screen per week (Lusted & Joffe, 2018). Regarding screen use of pre-school children in Turkey, Akçay & Özcebe, (2012a) found out that children spend 1.6 hours and 3.4 hours watching TV on weekdays and weekend days, respectively; Konca (2014) reported that children spend about half an hour using computer and about two hours watching TV on an average day. Based on the data gathered from parents for all screen types, Kaya (2017) revealed that children spend nearly 16 hours in front of a screen per week. The results obtained from the studies on screen-time of pre-school children have varied depending on country, time of the study, and screen types examined. However, despite the differences in the results, it is obvious that the resulting screen times are considerably higher than those recommended by the American Academy of Pediatrics (2016).

Considering that children in preschool level often need adult support in making their own decisions and organizing their lives and their self-regulation/limitation skills are insufficient, the parents' approaches inevitably affect their children's behaviors and habits in this period. A study with

the parents of 0-8 aged children in the US showed that the parents' screen use habits strongly influence their children's screen use. This study further stated that the children's screen use habits are highly affected by the parent-child interaction and the parents' attitude towards screen use (Lauricella et al., 2015). Also, Nikken and Schols (2015) reported that children's use of screen and the media content are engaged in are strongly linked to parental attitudes, rather than the child's age.

Studying the effect of the parents' perceptions and approaches on the use of screen to child's screen usage may contribute to positive discipline on the subject. A study, which aimed to determine the strategies used by parents with a child aged 5-6 to manage the child's screen use, reported that most of the parents have difficulty in controlling/managing the child's screen use and use screen as a reward or punish (Çekiç, 2019; Jago et al., 2016). Nikken and Jansz (2014) identified five fundamental mediation strategies that parents use to manage the child's screen use: supervision/monitoring, co-use, active mediation, restrictive mediation, and technical safe guidance; Nikken and Schols (2015) expressed that the use of these strategies primarily depends on parents' positive or negative attitudes on screen use. It can be argued that as the content offered by screen technologies is constantly improved and updated, parents need guidance on how to present the content of screen, social media and internet to their child, in other words, they need road maps being updated for their child's media use (Dinleyici et al., 2016; Radesky et al., 2015). Understanding of the parents' perceptions and feelings about their child's screen use may help to be prepared the road maps for preventive programs.

When examined studies in Turkey about parents' perceptions on children's screen usage firstly it can be seen that studies usually focus on only one type of screen technologies such as digital games (Toran et al., 2016), television (Coşkun & Arslantaş, 2016; Türkkent, 2012) or computers (Özyürek, 2018). Secondly studies focused on either parental perceptions of the effects of screen on the child (Coşkun & Arslantaş, 2016; Günüç & Atli, 2018) screen usage habits (Toran et al., 2016) or parent attitude toward to use of technology at preschool children (Saltuk & Erciyes, 2020). This study addresses screen use as a whole (encompassing television, tablet, smartphone...) as well as parents' perceptions on screen usage of their children and seeks to reveal the similarities and differences between the children's current screen usage and the usage considered optimal by the parents, that is, to compare between the actual and the desired screen use, which would add to the relevant literature. The other situation observed in studies examining parents' views on screen use in Turkey vast majority of them realized on the mothers and criteria for being working group is only being parent (Coşkun & Arslantaş, 2016; Özyürek, 2018; Toran et al., 2016; Türkkent, 2012). It can be said that the perceptions of parents about the children screen use are affected by their educational level and that parents in the higher education group show a relatively negative approach (McCloskey et al., 2018). In this study, with the participation of parents with a university degree, who are expected by the society

to be the most educated and, therefore, the most sensitive parents regarding screen use, would present rich and comprehensive information on the research subject.

This study aims to examine the perceptions of the parents, who are a university graduate and have a child in preschool level, about effect of screen use on their children, and to compare the children's actual screen use and the ideal screen use proposed by the parents. The research questions that guide this study are as follows;

What is perception of the parents who are university graduates and have preschool children about the effects of screen use on their children?

What are the differences and similarities between the current screen usage of children and what their parents consider ideal for them?

Method

Participants

The study group was formed through criterion sampling, which is one of purposeful sampling methods (Büyüköztürk et al., 2008; Yıldırım & Şimşek, 2016, p. 112). The study purposely seeks to analyze the perceptions of the parents in the high-education and with child in preschool level and the study group was constituted based on these criteria. It consisted of 25 participants, ranging in age from 26 to 43. While 20 of them were the mother, 5 of them (P3-14-15-22-23-24) were the father and 13 has a boy whereas 12 (P1-2-3-5-10-12-14-16-21-22-23-24) has a daughter. The participants had a child aged two (P5-6-11-21), aged three (P1-2-4-8-9-23-24), aged four (P7-13-17-19-20-25) and aged five (P3-10-12-14-15-16-18-22). They expressed their opinions on screen use of the children in these age groups.

All of the participants live with their spouses and two live in a extended family, 23 in a nuclear family consisting of parents and children. When the economic status of the participant as a family was analyzed, it was found that 11 (44%) had a monthly income of 3000 TL or less, six (24%) had a monthly income between 3000-6000 TL, and six (24%) had a monthly income of 6000 or more and two participants (8%) did not provide information about the monthly income. Besides participants consist of university staff, students whose receiving pedagogical formation training and parents whose children attend a private kindergarten.

Data Collection Tool

The study employed qualitative design and collected in-depth information through interviews, which is one of the techniques of this design. Interview is a data collection technique which based on asking and answering questions in advance to reveal what is going through one's mind (Cohen et al., 2007; Karasar, 2006, p. 165; Patton, 2014, p. 341; Yıldırım & Şimşek, 2016, p. 129). Due to human

being is a social entity, he has feelings and thoughts that vary time, place, and from person to person. In this context if it is desired to obtain in-depth and detailed information about a person's thoughts on a subject is one of the techniques that can be used is interview (Türnüklü, 2000). As the focus of this study is on screen technologies which are constantly changing and updated, it is possible to see changes in parents' perceptions on the use of these technologies. At this point, because of it was considered that the use of standard measurement tools would limit the data to be obtained and would be insufficient to reveal the change the perceptions of parents about the use of screen at their children's, interview was preferred as data collection method.

In qualitative research methods, since the researcher himself / herself plays an active role in the process of data collection and analysis, it becomes a natural part of the process and sometimes functions as a data gathering tool (Özdemir, 2010; Yıldırım, 1999). At this point, knowing the characteristics of the researcher may contribute to a better understanding of the research process. This work was conducted by a researcher who has phd in the field of guidance and psychological counselling and worked in preschool education for three years.

Interviews were performed based on a semi-structured form of open-ended questions designed by the researcher. Prior to the design of the interview form, the relevant studies and the theoretical literature were reviewed and the suitability of the interview questions was assessed in line with the opinions of an expert, who is experienced in qualitative research. In the initial form of the interview, effects of screen usage on the child were identified as one category, but upon the expert's suggestion about to divide this category as positive and negative effects the final form has been determined as two categories. In addition, within the framework of expert opinion, some of expression corrections were made in the categories of current screen usage of the children and parents consider ideal usage for children. At the end of these corrections, the interview form was reached a form which consisting of four main questions. Accordingly, the following four categories were identified: *“The positive effects and negative effects of the use of screen technologies on the children in preschool level and the actual screen use of the children and the parents’ suggestions for ideal use.”* Then, it was tested by pre-interview with two parents to determine whether it was understandable and concluded that the form is applicable.

Data Collection and Analysis

The interviews with the parents participating in the study were conducted in the lecturers' room at the university during September and October 2018. The interviews lasted a minimum of 15 minutes and a maximum of 50 minutes. The interviews were conducted when the researcher and the participant were available and before the interviews, the researcher informed participants about the purpose, duration and confidentiality of the interview. In addition, it was stated that the interviews were based on volunteering and the participant could finish the interview at any time.

The opinions expressed by the parents were recorded using a recorder. Following the transcription of the interviews, the texts were read by two experts, one of them is a researcher and the other experienced in qualitative research. Qualitative research methods generally are not based on a predetermined hypothesis so inductive approach is used in data analysis (Yıldırım, 1999). In this study, based on the inductive method, firstly the codes were attained from the data obtained the parents and then the themes were reached through these codes. The researchers reviewed the answers for each question and respectively identified the potential codes. The data for each participant were coded in the categories of main category, main theme and sub-codes, using the Excel program, which allowed for a holistic perspective towards the whole data. In this way, the citations were identified and the retrospective analysis was systematically performed, which minimized the data loss. Further, the following steps were taken to ensure validity and reliability.

Validity and Reliability

* Two different encoders decided the themes that similar codes were associated with.

To ascertain reliability between the encoders, “ $P \text{ (Reliability\%)} = [Na(\text{agreements}) / Na(\text{agreements}) + Nd \text{ (Disagreements)}] \times 100$ ” formula proposed by (Huberman & Miles, 1994) was applied and the accordance level was found to be 89%.

* In order to eliminate the researchers’ biases and to ensure the internal validity of the themes, the codes and themes were refined until the researchers agreed. The resulting themes and codes were given in tables. In the reports of the interview data, direct citations were used to present the parents’ perceptions as they are, and the citations were categorized according to the themes. The letter “*P*” was used to convey the opinions and the numbers assigned to the parents (*e.g.* (*P1*), (*P2*)) were included at the end of the citations. For a better understanding of the subject, categorical information regarding the parents and their children were presented in the comparative themes.

* Prior to the study, pilot interviews were conducted with two parents and the interview form was examined in terms of applicability and revised.

Results

Sub-problem 1. Table 1 shows the parents’ perceptions on the positive effect of screen use on the development of children in preschool level.

Table 1. The parents’ perceptions on the positive effect of screen use on the development of children in preschool level

Main Theme	Sub Theme	Sub Codes	f	%
Positive effects	Learning experience	Knowledge/skills acquisition	20	80
		Learning different words	6	24
		Foreign language acquisition	4	16
		Music experience	4	16
		Seeing visuals	3	12
	Parental education	1	4	
	Offering a pleasant environment	2	8	
	Lack of belief in its benefits	8	32	

When table 1 is examined there are five different sub-codes in the sub-theme of learning experience, which are respectively knowledge/skills acquisition, learning different words, foreign language acquisition, music experience and seeing visuals. Regarding *knowledge/skills acquisition*, most of the participants (80%) expressed that screen use is beneficial for the acquisition of certain knowledge and skills. These knowledge and skills included species, historical knowledge, animal sounds, animals, vehicles, numbers and letters, colors, fruit-eating habit, hand-washing before meal, toilet training. Related to this subject, P3 stated: “My child learns the nature in a virtual environment, recognizes the species that are not endemic to the environment we are in, knows his/her own history well. P18 expressed: “A good program enables the child to learn to follow some rules that may be present at home, such as hand-washing before eating, and toilet training.” Screen use promotes *language development* through its help for learning different words as stated by some of the participants (24%) and through its contribution to foreign language acquisition as stated by the other participants (16%). Regarding the code of learning different words, P23 stated: “My child has started to use some words used in daily life by learning them on the TV screen. For example, he/she learnt the word “welcome” from a TV program and used it when I came home. I believe that one of the most important advantages is to know different words.” P3 expressed that: “I think it supports language development by enriching one’s vocabulary.” Regarding foreign language acquisition P7 said: “I made him/her listen English-Arabic songs through the screen. Supporting the words listened with the visuals enables him/her to learn these words. I believe it is an important support for language acquisition.”

Moreover, screen use has the following positive effects for children: *music experience* (16%), *seeing visuals* (12%), *offering a pleasant environment* (8%) and *parental education* (4%). Some of the parents’ opinions regarding these effects are as follows:

As a mother, I am learning puppet games and rhymes through Youtube. By training myself, I enable my son to play educational games (P6, mother of a 2-year-old boy).

I think that a good program strengthens visual memory. He can learn the names of many objects and the ways they are used (P20, mother of 4-year-old boy).

The one of the most remarkable findings in the study, which is that one-third of the participants (32%) believed that screen does not have any benefit for children. P13 stated: “I do not see any positive effect on children. Children are only interested in popular applications or games.” P11 said: “I do not think that it has a positive effect on the children in the small age group. On the contrary, it has negative impacts such as communication and sociability problems.” P8 stated: “I do not think that it has any positive effect on the children in the pre-school period. Since the children in this period have a great potential. Screen use is not necessary for their development.”

Sub Problem 2. Table 2 presents the parents’ perceptions on the negative effect of screen use on the development of children in preschool level.

Table 2. The parents’ perceptions on the negative effect of screen use on the development of children in preschool level

Main Theme	Sub Themes	Sub codes	f	%
Negative effects	Negative Behaviors	Violence/aggression	7	28
		Swearing	6	24
		Obstinacy	5	20
		Screen addiction	5	20
	Social Skills	Isolation	12	48
		Unwillingness to go to nursery	1	4
	Language-Cognitive Skills	Attention deficit	6	24
		Inability to distinguish between the real and the virtual	6	24
		Speaking skills	4	16
	Physiological Effects	Negative eating habits	2	8
		Eye health	3	12
		Sleep disorder	1	4

Following the analysis of the parents’ perceptions on the *negative effects* of screen use in the development of the children in preschool level, four sub-themes were identified: negative behaviors, social skills, language-cognitive skills, physiological effects. In the sub-theme of *negative behaviors*, the parents stated that screen causes behavioral problems such as violence/aggression (28%), swearing (24%) and obstinacy (20%) when it is uncontrolled. Regarding this, the parents expressed the following opinions: P9: “I think that excessive use of televisions and tablets would have negative impacts for children, such as aggression and eye health problems. Also, children become very grumpy when their tablets are taken away from them.” P1 stated: “When the contents of internet and television are not carefully selected, this may cause negative behaviors in children such as violence and swearing. This situation may bring about permanent problems in the child.” P19 said: “As screen use causes the brain to memorize anything, the child has difficulty in expressing himself/herself and shows the tendency to violence, which is, as far as I am concerned, one of its greatest harms.” Besides, the parents reported that screen technologies may lead to negative behaviors for the children in preschool level such as screen addiction (20%).

Remarkably, in the sub-theme of *social skills*, almost half of the participants (48%) agreed that screen use results in *isolation*. Regarding this, P1 stated: “An uncontrolled and unlimited use of televisions, phones, etc. decreases the interest of the child towards nursery and their friends and leads to isolation.” P4 expressed: “The children exposed to screen find it difficult to relate to the social environment, and keep away from playing with their friends and exploring the environment.” P16 stated: “The most vital negative effect of screen use is its adverse impact on the child’s communication with other individuals, which prevents the child from socializing, since the child prefers spending time alone in front of a screen over spending time with their friends. Within the same theme, one of the mothers reported that excessive use of a screen would cause unwillingness to go to nursery (4%).

In the sub-theme of language-cognitive skills, the parents pointed to the negative impacts of screen use on the children in preschool level period, such as *attention deficit* (24%), *inability to distinguish between the real and the virtual* (24%). Further, 16% of the parents emphasized that an uncontrolled use adversely impacts the *speech development* of the children in preschool level. It is further reported by the parents that there are *adverse physiological effects* caused by screen use, such as *eye health* (36%), *negative eating habits* (8%) and *sleep disorder* (4%). The parents’ opinions on the language-cognitive effects and physiological effects of screen use are as follows:

I think when the child watches TV or videos on phone for more than 1 hour without parental control, he/she shows attention deficit, obstinacy, and physical disturbances. I personally experience these things when my daughter watches videos on phone for a long period of time (P5, mother of a 2-year-old girl),

The screen light disrupts the sleep pattern of my child. I myself know that it makes you feel tired. As sleep disorder affects brain hormones, it is also a cause of attention deficit, in my opinion. Further, the use of tablets or televisions as a tool for the children who do not eat may lead to negative eating habits such as over-eating and obesity, reducing the awareness for the feeling of hunger (P15, mother of 5-year-old boy),

Sub-problem 3 and 4. Table 3 presents the comparison of the information provided by the parents on the current screen use of their children (duration of use, rules for screen use, programs or applications followed...) and their perceptions on the ideal screen use.

Table 3. The parents' perceptions on the current screen use and ideal use of their children in preschool level

Main theme	Sub-Theme	Current situation		Ideal use		
		f	%	f	%	
Current and ideal use pattern	Time limitation	Available	13	52	17	68
		NA	7	28	-	-
	Parental control	9	36	14	56	
	Means to take time off	4	16	-	-	
	Use for reward purposes	2	8	1	4	
	Alternative activities	-	-	2	8	
	Setting an example	2	8	4	16	
	Screen content	Game	3	12	-	-
		Cartoon	5	20	-	-
		Educational	8	32	8	32
		Age appropriate	7	28	5	20
	Parent-child co-use	1	4	4	16	

Inspection of Table 3 demonstrates that whilst 68% of the parents reflected that there should be a *time limitation* for screen use; 52% of them imposed a time limit for their children, but 28% reported that they failed to impose a time limit. There was a total of 13 parents who imposed a time limit and the upper limit was determined as an average of 1 hour by 8 parents, as 2 hours by 3 parents, as 3-4 hours per day by 1 parent, and as 1 hour per week by 1 parent. Similarly, while more than half of the participants (56%) supported *parental control*, only 36% of them stated that they could control screen use. It is further revealed that 16% of the parents allowed their children to use a screen to *take time for themselves*; but, no parent reported a suggestion for such use when asked about ideal use. Within the same theme, 8% of the parents allowed their children to use a screen for *reward purposes* and the same number of the parents (8%) stated that they try to set an example for their children regarding screen use, and 4% of the *parents co-used* the screen with their children. Inspection of the same codes in the ideal screen use reveals that only one participant stated that screen can be used for reward purposes; 4 parents (16%) supported parent-child co-use and 4 parents (16%) highlighted that parents should set an example regarding screen use for their children. In the theme of *screen content*, 32% of the parents expressed that educational-tutorial content should be prioritized; as for the current use, educational-tutorial content, games, cartoons and age-appropriate content were reported as a consideration in choosing screen content by 32% of the participants, 12%, 20% and 28%, respectively. Analysis of the opinions on screen content indicated that 32% of the parents expressed that their children used a screen for playing games and watching cartoons; yet, remarkably, there was not a single parent who advised such use when asked about the ideal screen use. The parents' opinions on the current screen use and the ideal use are as follows:

P3, Mother of 5-year-old girl, * CS (Current Situation) *IU (Ideal Use)

CS: I allow my daughter to use a screen for an average of 2 hours a day. All the channels broadcasting violent content are filtered out, and I only allow her to watch cartoons appropriate for her age.

IU: Young children should spend as little time as possible on screen. The child can watch educational documentaries related to real life rather than cartoons and movies. In this way, the child learns and thinks at the same time while sitting in front of a screen.

P17, Mother of 5-year-old boy,

CS: I allow my son to use phones, tablets, and televisions for an average of 3-4 hours a day. He watches kids channels. Sorting games, puzzle games, and educational content on foreign language education are available on my phone. My son also plays football and pirate games.

IU: There must be a time limit and it is important not to exceed this limit. The child should use technology under parental control. Certain websites should be blocked.

P5, Mother of 3-year-old girl,

CS: She can watch things on the tablet under my control, but not more than 1 hour a day. Most of the time, she watches educational content as a reward while eating. I do not know if this is the right thing to do. She sometimes does not want to eat, and I end up doing this.

IU: The child should use the screen under the supervision of the parents, who should talk about the content watched, for less than 1 hour a day. I cannot say that the child should never use it. Since we are always on our phones during the day. Actually, we need to first select useful content on screen use and to set an example as parents.

P7, Mother of 5-year-old boy,

CS: At first, it was like an escape when my child used a screen and I could do my own things while my child was being occupied. Yet, as he grew, he explored some games and spent more time in front of the screen. This is why I am angry at the dad as he does not intervene with the child. Although I make efforts to control it, I sometimes fail to. I try to impose a time limit. If he does not follow the rule and shows violent behaviors, I do not allow him to use the tablet for a certain period.

IU: There must be a time limit, and the parents should co-view it. Although we cannot totally prevent it, we should offer alternatives to the screen, such as parks. The child should be kept away from the screen. Parents should offer activities such as visiting a park, which can be an alternative to tablets.

Discussion, Conclusion and Recommendations

The participants of this research can be considered as one of its strength as well as limitation. The data collected from the parents with a university degree are of great importance since these data reveal the problems encountered by the group who is probably the most sensitive regarding screen use. Still, when the educational level is restricted with a certain group of people, the resulting findings should be more carefully assessed. Another crucial limitation regarding the study group is that the group mostly consists of mothers. Lastly, parents are an important factor in determining a child's habits and behaviors on screen use; furthermore, a variety of factors including the family's socio-economic level, educational level, the child's age, gender, ability to use screen, accessibility to screen, social circle have a potential impact on screen use, which should be also noted by researchers and practitioners.

In its simplest form, attitude can be defined as an evaluation of people, objects and ideas (Aronson et al., 2012). The feelings, ideas and behaviors of parents on screen and children's screen use are expected to affect their children's screen use. The findings of this study showed that the parents believed that screen use can have both positive and negative effects on children in preschool level. Similarly, the study performed by Bentley, Turner ve Jago (2016) reported that while some of the mothers expressed their concerns about screen use of their children, others stated that screen use is necessary and helpful. In the study by Türkkent (2012) the vast majority of the mothers and almost all of the pre-school teachers said that children are affected by the contents on the television. Kaya (2017) similarly revealed that almost half of the parents believed that their children are negatively influenced by screen. All these data indicated that parents mostly agreed on the effect of screen use on their children. Yet, it is very difficult to point to a consensus on whether such effect would be negative or positive. Analysis of positive and negative perceptions in this study demonstrated that the participants of this study expressed more negative perceptions and less positive perceptions on the effect of screen on their children. In this regard, Radesky et al (2015) explained that screen technologies, just like traditional media tools, may have positive and/or negative effects on the child's behavior and development depending on the factors such as the parents' approach, their socio-economic level and the child' developmental/individual characteristics.

The findings of the study indicate that parents' negative perceptions towards children's screen use are more pronounced but despite this negative approach parent feel insufficient to controls children's' screen usage and being role models for ideal usage. Especially the significant difference between what they consider ideal and current screen usage of theirs children's shows that parents may be experiencing some mental and emotional uncertainties regarding the use of screen. There are some studies pointing out a strong correlation between the amount of screen use among parents and children (Kaya, 2017; Jago et al., 2014; Nikken, 2017). A study reported that the parents who excessively use

screen technologies show a relaxed and low attitude towards both their own and their children's screen use (Thompson et al., 2017). In this regard, the parents' personal reasons to use screen and the reasons to allow their children to use it may affect the child's screen habits.

The discussions on the benefits or harms of screen use reported by parents are available in the literature on this subject as well. Some studies suggested that the excessive screen use by young children may damage the child's fine motor skills (Lin et al., 2017) and that there is a negative, significant correlation between screen and positive social behaviors as well as a positive significant correlation between screen and aggression (Akçay & Özcebe, 2012b). On the other hand, screen technologies have the potential to offer critical learning opportunities to children, especially those in a disadvantaged environment. This view is supported by the fact that parents have been lately recommended to co-use media technologies with their young children (Connell et al., 2015). Besides, it is necessary to note that the effect of screen use can change depending on age or over the years (Segev et al 2015).

Probably one of the most remarkable findings in this study is the difference between the ideal use suggested by the parents for their children and the children's actual screen use. These differences are particularly notable in screen content, time limitation and parental control. Similarly, Jago et al (2015) reported that there is a low correlation between the parental control on screen use of the children in pre-school period and the amount of screen use among these children; Kaya (2017) revealed that the amount of screen use among children does not vary depending on the availability of a time limit imposed by their parents or how the parents perceive screen —harmful or useful. On the other hand, De Decker et al. (2015) put forward that the availability of the TV rules for children has an impact on the amount of TV viewing among children. The attitude of a person on a subject may not always predict their behaviors regarding that subject. In this sense, numerous factors such as the content, accessibility of the attitude, the belief in and strength of the attitude influence to what extent we can predict the behavior based on the attitude (Aronson et al., 2012, p. 393–398; Hogg & Vaughan, 2007, p. 181–182; Kağıtçıbaşı, 1999, p. 109–115). That being said, the difference between the actual situation and the ideal situation regarding screen use may result from unrealistic expectations, the lack of efforts to implement suggestions for the ideal use, a weak belief in these suggestions, or insufficient skills to control children.

One of the aims of this study is to present the approaches of parents regarding their children's screen usage and to contribute to the road maps for the use of healthy screen. In this context one of the first issues to be addressed is the negative perception of parents towards screen. The study by Nikken and Haan (2015) found out that the parents' problems about their children's screen use become more visible when the parents have a negative perspective towards screen technologies and when there is a positive perception towards screen and screen are used for educational purposes, the problems are

reduced. Further, Jago et al. (2016) suggested that setting screen-viewing limits, collaborative rule setting, monitoring that involves mothers, fathers and the child, developing a family specific set of alternative activities to screen viewing and developing a child's ability to self-monitor their own screen viewing are the potential strategies to reduce screen viewing.

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Scheduled Leadership Behaviors Scale for School Administrators: Validity and Reliability Study

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Abstract

Scheduled leadership can be defined as empowering individuals with the exception of the team's top manager with 'freedom of acting and decision making.' A wide range of measurement tools have been developed with the aim of measuring planned private leadership. In Turkey, the studies have begun to adapt it to our language and have continued to develop an appropriate scale for the Turkish management structure and operation. The planned leadership scales that have been developed in the field of education are not adequate and the relevant scale development studies are required. The main objective of this study is to re-approach the behavior of school administrators of planned leadership and to develop a scale within this framework. In Canakkale, a sample group, 360 individuals who were identified using a cluster sampling method were studied. SPSS 23.0 and AMOS 24.0 statistical packaged software were used for data analysis. Explanatory factor analysis and confirmatory factor analysis were calculated for the suitability of the data set for factor analysis, sample efficiency and validation studies; Cronbach Alpha internal consistency was calculated for the reliability studies. With the actions being carried out, the scale of 30 items is such that the 'School Manager's planned leadership behaviors' are presented. -In conclusion, the scale developed has a four-factor structure, "Development and Cooperation", "Culture", "Vision and Responsibility" and "Chances and Opportunities" and is characterized by a high degree of validity and reliability.

Keywords: Scheduled leadership, developing a scale, school manager, validity, reliability

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Introduction

Social institutions have an open understanding of the system, resulting from its multi-directional interaction. Educational organizations acting with contemporary understanding and having individuals at the heart of themselves are effective in having a qualitative and active management understanding structure. This aspect of educational institutions requires a strong structure and interaction in itself and with other social institutions. It is important for the administrations to closely follow the developments and innovations in order to create this power in education and school organizations.

Bursaliöglu (2013) emphasized that running an organization in the monotony of a machine like a clock is impossible and drew attention to the hardness of managing an organization. It is the duty of the administration to sustain the school in the direction of its own objectives. Beycioöglu and Aslan (2010) stated that the managers of the organization must be experienced in the structure and operation of the organization and must also be innovative. School administrators are expected to adopt and reflect on developments and innovations in the understanding of management as implementations. In our globalizing world, school administrators should be followers of the developments and environments that technology has provided, as well as transfer their skills of effective management and leadership to employees. In order to do this, instead of ordering employees what to do, employees need to take part in the decision-making process and see the broad picture.

Güçlüol (1985) claimed that the tenancy aspect of the school administrators predominates because they are busy with red tape. Açıköz (1986) and Açıkalin (1998) emphasized that as the period of democratization in education began after the 1980s, the democratization of school administration is also inevitable. With the development of the bureaucratic structure, there was a focus on the physical improvement of schools and the inclusion of many centers in the new schools (Balci, 2000).

The democratic approach of the superseding traditional organization has broken the central structure and brought functionality, development and change to the definition of duty and authority (Gümüşeli, 2001) as well as a management case based on a sense of leadership.

Leadership, in the simplest form, is to lead one or more individuals with different methods. There are two types of leadership, formal and informal, in terms of power and authority. While formal leaders have an impact on the group with authority, informal leaders are trying to consolidate with the group. The school administrator, in addition to being a formal leader, both motivates the informal leadership organization and forms an interaction in the direction of a common goal of unity (Bursaliöglu, 2013). Apart from the educational, transformational and visionary leadership that brings more than one aspect of the school organization into being, the leadership features that predominate

the planned understanding are to be adopted by the institution's manager. Contemporary management understanding predicts that school administrators will have a manager profile that can act in the direction of planned leadership by leaving aside traditional management styles.

Scheduled leadership, which is the period of all partners achieving a common objective on a self-sufficient scale with a sense of responsibility, voluntary collaboration and social interaction (Ağroğlu Bakır, 2013; Fullan, 2001; Harris, 2003, 2006; Kılınç & Reçepoğlu, 2013) is a leadership style that makes cooperation and social interaction more prominent (Bolden, 2004; Gibb, 1954; Hoy & Miskel, 2). With this aspect, scheduled leadership can be seen as an interactive period that distributes power and responsibilities among the members of the organization to carry out the organization's objectives (D'Innocenzo, Mathieu & Kukenber, 2016). In addition, it is not only the distribution of leadership, contribution and skills of the other partners in the organization that requires leaders to be successful in the organization and to realize the objective of the organization (Carson et al., 2007).

According to Baloğlu (2011) planned leadership, rather than concerning the characteristics and characteristics of leaders as individuals, sees leadership from a more taxonomic point of view by separating leadership responsibilities from formal organizational roles and disseminating it to the actions and effects of the organizational partners. Other administrators, school teachers, parents and students play roles during the leadership period and are not considered passive members of the organization. Scheduled leadership, regardless of position difference, brings together organizational partners' knowledge, skills and expertise.

It is usually based on an approach to placing leadership in the understanding of the system in organizations where a shared sense of leadership is adopted, rather than placing one or more individuals at the top and applying their decisions only. From these points of view it can be argued that new measuring tools should be developed in relation to these leadership practices and perceptions. The main objective of this study is to develop and incorporate into the literature a new measuring tool that examines the subject of shared leadership in many dimensions and from different angles, which has applicability at all educational levels.

Previous Studies on Leadership Scale Development

The first tools used to define shared leadership behaviors and attitudes of education managers in Turkey are scales developed in different countries and adapted to Turkish. Adaptation studies on this subject have shown that scale development studies are carried out in accordance with the structure and functioning of the Turkish education system (Bursalıoğlu, 2013).

The scale developed by Hulpia, Devos and Rosseel (2009) has been adapted in Turkish by Özdemir (2012). In this study, the researcher considered shared leadership in the Distributive Leadership Inventory, which he prepared, on two sub-scales: "Leadership Functions" and "Leadership

Team Harmony”. Taşdan and Oğuz (2013) formed a Distributive Leadership Theory based on Davis (2009) education organizations and Spillane's (2006) Distributive Leadership Theory. In the development of scale items; Connecticut Distributive Leadership Attendance Scale (Elmore, 2000; Gordon, 2005), Teacher School Leadership Scale (Katzenmeyer & Moller, 2001) and School Leadership Scale (University of Michigan, 2001) tool was utilized. The scale in question consists of 37 substances and 7 dimensions, and the test-re-test reliability coefficient $r = .93$ ($p < .001$) was determined to be [.95]. Davis (2009)'s Distributive Leadership Scale has also been adapted to Turkish by many other researchers (Şahin et al. 2014). In view of the fact that the adapted scale does not have sufficient valid values, it was considered appropriate to use it in one dimension.

The shared leadership scale developed by Özer & Beycioğlu (2013) was determined to have a ten-point and one-factor structure. The coefficient of internal consistency of the cronbach-Alpha scale was calculated as [.92]. The test-retest correlation coefficient between two different applications with a nine-day deceleration was calculated as [.82] in order to determine the consistency of the scale against time. The ‘Shared Leadership Perception Scale for the Parent’ developed by Erol (2016) was calculated as [.89] for the whole, [.90] for the first factor, [.84] for the second factor and [.76] for the third factor in the three-dimensional data collection tool consisting of 23 items. The internal consistency of the scale is acceptable. The Shared Leadership Perception Scale was developed by Wood (2005). The adaptation of the scale to Turkish was done by Bostancı Bozkurt (2012). The Shared Leadership Perception Scale consists of 18 items and 4 dimensions and is a 4-point likert scale. In an exploratory factor analysis study conducted on the ‘Shared Leadership Scale in School Organizations’ developed by Aslan & Ağıroğlu-Bakır (2015), KMO (Kaiser Mayer Olkin) coefficient and Bartlett-Sphericity (Globality) and (KMO = .96) data based on factor analysis ($\chi^2 = 9580.635$, $sd = 1485$ $p < .05$), confirmatory factor analysis revealed that the scale was well-compatible. Thereafter the reliability studies of the scale ($\alpha = .98$), a data tool consisting of five factors and a total of 55 items was obtained.

Both the researchs and the researchers's observations are included as a new concept and practice of shared leadership in the management of the school organisation. A participatory and shared understanding that is formed for common purposes takes the place of traditional leadership models that gather power from one side. Perceptions are being developed that are in an appropriate place within the school organization system, serve the purpose, volunteer and work open to cooperation. In addition to the status and career similarity of employees in the school organisation, their proximity in this direction reveals the inevitability of more shared management ideas. It is seen as an important requirement to know how much school administration has implemented its understanding of sharing leadership in decision-making processes and practices, and to identify and develop new approaches to

this aspect of competence and inadequacies. It raises a requirement to identify the shared leadership behaviors of teachers and the level at which school principals demonstrate these leadership roles.

The main aim of this study is to develop a measuring tool that is applicable to all levels of education in our country and to analyze planned leadership in many dimensions and different aspects. In this sense, it has been established that the development of a reliable and valid scale to analyze the subject on the basis of the schools and overlap with the structure and functioning of the schools. It is assumed that such a scale will provide Turkish researchers with an opportunity to analyze this subject closely, thereby determining at what rate the planned leadership will take part in the current applications and also in the direction of the results achieved, providing possible solutions to-be offered-

Research Aims

The main aim of this study is to develop a scale that has a high level of validity and reliability by analyzing the planned leadership behavior of school administrators. Based on research aims, the research questions are stated as follows:

1. In the direction of the conduct of validity and the planned behavior of leadership;
 - a) What are the results of the analysis of the explanatory factor?
 - b) What are the results of the analysis of the confirmatory factor?
2. What is the level of reliability of the “Scheduled Leadership Behaviors Scale for School Administrators” (SLBSSA) which is the subject of the study?

Also in the direction of the results achieved, providing possible solutions to-be-offered-

Method

Current scales which are prepared on the basis of a literature review of planned leadership have been studied; the size and the items relating to planned leadership behaviors have been re-organised, taking into account the structure and operation of the Turkish education system. Question items were examined by two experts in the field of education administration and a Turkish language teacher, and their opinions were received. For analysis and opinions, a five-point Likert tool including 32 items has been developed (5-always, 4-most of the time, 3-sometimes, 2-rarely, 1-never). The measuring tool titled “School Administrators Scheduled Leadership Behaviors Scale” was applied to the group of teachers in the sample.

Sampling

The sample group that collected data from the study aimed at developing a scale to show the planned leadership behavior of the school administration in a valid and reliable manner was

determined using the proportional cluster sampling method. This type of sampling is not the target population or the members who have a fair chance of being selected as a sub-population have their own groups with their members (Karasar, 2006). Since the study population is made up of similar working groups, the grouping was made by determining the schools where the teachers work, not by determining the teachers who would participate in the research. The data of the Canakkale Provincial Directorate of National Education and the data of the “DPT Socio-Economic Development of Provinces Ordering Research” were based on the period of identification of districts and schools. The sample size of the study was calculated on the basis of a tolerance level of 0.05 and was found to be valid at 360 (Balci, 2010). The research group, consisting of 360 teachers working in kindergarten, primary, secondary and secondary schools in the Canakkale Center and district government schools, participates in the research on a voluntary basis. The schools, which does not have a separate school administration, has been left out of the scope. In terms of sample size, the data set is perfectly suitable for factor analysis (Çokluk et al., 2016; Kalaycı, 2010; Karagöz, 2016). The personal and professional characteristics of the teachers involved in the study are presented in Table 1.

Table 1. Personal and professional characteristics of the teachers involved in the research (n=360)

Groups	f	%
Gender		
Female	194	53,89
Male	166	46,11
Professional Seniority		
0 - 5 years	56	15,56
6 - 10 years	83	23,06
11 - 15 years	97	26,94
16 - 20 years	65	18,06
21 -25 years	34	9,44
26 and over	25	6,94
School Level		
Pre-school	34	8,94
Primary school	81	22,50
School	148	41,11
High school	97	26,95

53.89 percent of the participants in the study sample were female and 46.11 percent were male. 15.56 per cent are between 0-5 years, 23.6 per cent are between 6-10 years, 26.94 per cent are between 11-15 years, 18.06 per cent are between 16-20 years, 9.44 per cent are between 21-25 years, and 6.94 per cent are between 26 years of seniority and more. In addition, 8.94 percent of teachers are working in preschool, 22.50 percent in primary school, 41.11 percent in middle school, and 26.95 percent in high school and equivalent levels.

Constructing the Scale Items

The following studies have been conducted in developing the scale of teachers to determine the shared leadership behaviors of school principals:

1. First, literature on the subject was reviewed and the written sources reached were examined in-depth.

2. The questions in the measurement tools of the studies were examined one by one and the common and separate points were identified, the theoretical foundations were examined and the methods followed in their development were examined.

3. A question pool related to the scale was created by writing scale articles taking into account the field of theoretical information about shared leadership and related scales.

4. It was examined whether the substances comply with the purpose, structure, process and atmosphere of the Turkish education system (Bursalioglu, 2013). Non-appropriate questions are excluded from the scale form.

5. It was examined whether the remaining substances in the pool are suitable in terms of Turkish language and expression. In this regard, a Turkish and a classroom teacher's assessment was applied and the expressions were corrected by discussing the subject together, trying to achieve the intelligibility of the substances and the integrity of meaning in this manner.

6. Question items in the created scale draft are reorganized according to organizational purpose, structure, process and atmosphere dimensions. Two training management experts have been supported to examine and evaluate these substances in terms of validity of the scope. The scale has been reorganized in line with the opinions and recommendations of field experts.

7. As a result, a tentative 5-point Likert scale created with 32 question items was created by rating between 1-5. Each question item in the tentative scale form was evaluated according to their degree of participation; (5) Always, (4) Most of the time, (3) Sometimes, (2) Rarely (1) Never time intervals. Accordingly, the lowest score that can be obtained from SLBSSA in school organizations is 32 and the highest score is 160. The high scale score of school administrators for shared leadership behavior means high teacher perceptions; and low scores mean low teacher perceptions.

Data Analysis

For data analysis, SPSS 23.0 and AMOS 24.0 statistical packaged software were made use of. Explanatory factor analysis and confirmatory factor analysis were calculated for suitability of data set to factor analysis, sample efficiency and validity studies; for reliability studies, calculation of Cronbach Alpha internal consistency was presented.

Findings

In this part, the validity and reliability studies performed in the direction of development phases of SLBSSA are presented.

Table 2. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0,96
Bartlett's Test of Sphericity	Approx. Chi-Square	7712,87
	Sd	496
	Sig.	0,00*

Following the pilot scheme, it was confirmed that the Barlett test was found to be significant ($p=0,00$) by performing an exploratory factor analysis to present the construct validity of the scale and that the Keiser Meyer – Olkin (KMO) value was found to be above 0,50, acceptable value, 0,96.

For the determination of the factor pattern, the main component analysis was used as the method of making a factor, the maximum variability (varimax), one of the vertical spinning methods, was chosen as the spinning method, and the standard of keeping the variance rate explanation 0.50 and above was based on. For items with a load factor of 0,50, the sample size shall be at least 120. As a result of the analysis of the factor, four factors, of which the own value is 1,2 and above, were obtained for 32 items based on the analysis. In this framework, the own value, the explained variance ratio and the total variance ratio are shown in Table 3.

Table 3. Eigen value and Explained Variance Ratio regarding to SLBSSA (%)

Dimensions	Eigenvalue	Variance Described	Total (cumulative) Variance
1. Factor	15.09	72,68	72,68
2. Factor	1.71	14,60	87,55
3. Factor	1.56	6,53	94,08
4. Factor	1.20	5,91	100,00

The factors that were formed as a result of explanatory analysis were named as such;

Factor 1: Improvement and Collaboration

Factor 2: Culture

Factor 3: Vision and Responsibility

Factor 4: Opportunities and Chances

It was found that total contribution of SLBSSA four factors to the total variance was found 69.11. It was seen that the eigen value of “Improvement and Collaboration” factor is 15,0 and the contribution of it to the total variance is 72,68; the eigenvalue of “Culture” factor is 1,71 and its contribution to the total variance is 14,60; the eigenvalue of “Vision and Responsibility” factor is 1.56 and the contribution of it to the total variance is 6.53; the eigenvalue of “Opportunity and Chances” factor is 1.20 and its contribution to the total variance is 5.91.

According to the results of explanatory factor analysis, as a conclusion of necessary picking, “Improvement and Collaboration” factor comprises of 11 items, “Culture” factor comprises of 7 items, “Vision and Responsibility” factor comprises of 7 items and “Opportunities and Chances” factor is 5 items. The results of explanatory factor analysis can be seen in Table 4.

Table 4. The results of explanatory factor analysis regarding to SLBSSA (%)

	Factor I	Factor II	Factor III	Factor IV
1. School principal’s working with the consciousness of being a group member with the other teachers	0,74			
2. School principal’s giving opportunity of working together to the related partners in problem solving subject	0,71			
3. School principal’s assuming the responsibility of students’ success and failure with school administration and teachers	0,70			
4. School principal’s supporting teachers in developing the school, bringing innovation to school and following them	0,70			
5. School principal’s paying attention to improving effective communication among the partners	0,69			
6 School principal’s adopting the understanding of managing that is open to change and innovate	0,67			
7. School principal’s making decisions about school by receiving the opinions of related partners, without discrimination	0,64			
8. School principal’s forming an atmosphere based on respect and trust among all partners	0,63			
9. School principal’s rendering teachers eager to use new and contemporary teaching methods and technologies	0,61			
10. School principal’s encouraging all partners (teachers, students, parents, administrative staff etc.) to agree with the decisions	0,61			
11. School principal’s having an understanding of ‘school improvement’ which is students’ success and learning oriented for school effectiveness	0,56			
12. School principal’s sharing the authority and responsibility of works to do at school with the other partners	0,54			
13. School principal’s leading the partners (manager, teacher, other staff etc.) to realize the vision and mission of school	0,52			
14. School principal’s effort to school resources (library, laboratory ect.) to be sufficient for teachers’ improvement		0,74		
15. School principal’s bearing responsibility of infusing school values (respect, caring, collaboration etc.) into students with the help of teachers		0,74		
16. School principal’ s preventing an atmosphere of chaos and tension at school		0,73		
17. School principal’s effort to supply any resources based on environment and parents support for the school		0,65		
18. School principal’s forming an environment for free communication that everybody shares their own opinions		0,65		
19. School principal’s paving the way of being open to change and innovate for teachers		0,59		
20. School principal’s forming an environment to supply teachers to reach the information and documents easily they need		0,40		
21. School principal’s preparing teachers to shoulder the responsibility of leadership roles			0,77	
22.School principal’s giving a chance to teachers to shoulder the responsibility and authority of making decision in certain subjects			0,74	
23. School principal’s rendering teachers eager to share leadership			0,63	

24. School principal's expecting teachers to behave students in the way of effecting and encouraging them to raise their success	0,60
25. School principal's shouldering students' failure beside their success as much as related partners	0,53
26. School principal's determining vision and mission of school by debating with teachers	0,45
27. School principal's receiving feedback about how vision and mission of school should be from all partners	0,41
28. School principal's giving chance to be a leader to newly appointed teachers not just senior teachers	0,66
29. School principal's wishing to share leadership instead of being the only leader of school	0,65
30. School principal's allowing immediate surrounding to benefit from resources of school	0,54
31. School principal's talking about how to improve school in conversations	0,49
32. School principal's arranging working hours by gathering with teachers to supply them to debate educational issues	0,47

The structure of the factor determined by the explanatory factor analysis was tested using the AMOS 24 package program for confirmatory factor analysis. Confirmatory factor analysis ensures the determination of whether or not the variance groups are sufficiently represented by certain factors to test the suitability of the factors determined by the explanatory factor analysis to the structure of the factors (Karagöz, 2016).

Table 5. Reliability co-efficient regarding to scheduled leadership scale

Dimensions	Cronbach's alpha reliability coefficient	Number of Items
Development and cooperation	0,92	11
Culture	0,90	7
Vision-Responsibility	0,89	7
Opportunities and chances	0,70	5
TOTAL	0,87	30

Confirmatory factor analysis aims to present whether or not the model developed on the basis of the hypothesis is confirmed or not, or to what extent the expected model adjusts the model observed. In the confirmatory factor analysis, which is the most effective analysis in evaluating the alignment of the chosen model with the data, co-efficient (fit indices) are produced with respect to construct validity (Çokluk et al., 2016). For model suitability, CFI (comparative fit index), GFI (good fit index), AGFI (adjusted good fit index), CFI (comparative fit index) and RMSEA (root mean square approximation error) values are generally observed. There is no limitation about the necessity of which fit indices should be studied (Karagöz, 2016). The diagram of confirmatory factor analysis belonging to School Principal's Scheduled Leadership Scale is in Figure 1.

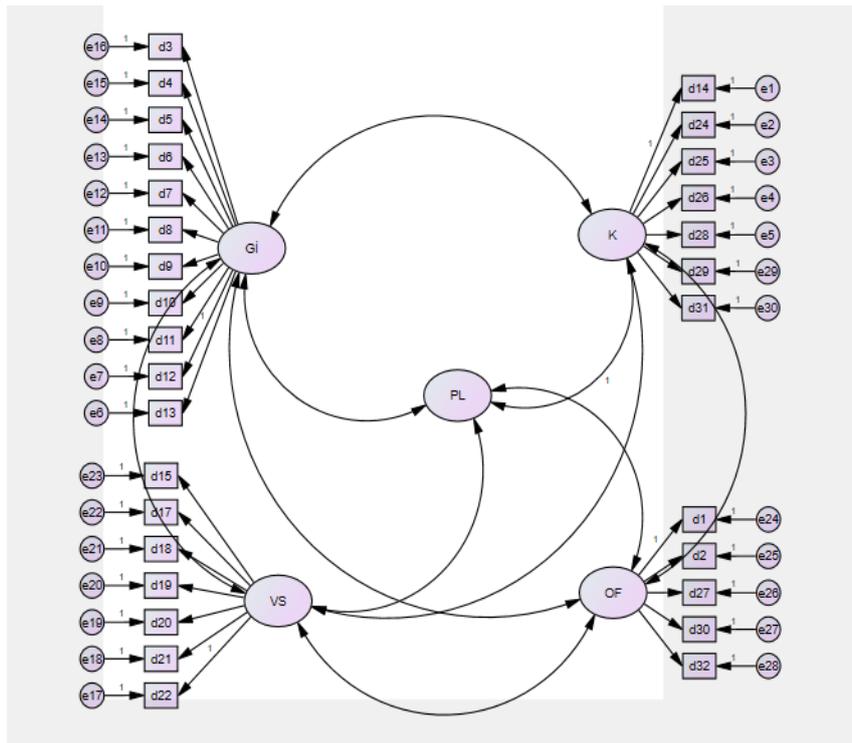


Figure1. The Diagram of SLBSSA's Confirmatory Factor Analysis

In the confirmatory factor analysis of the scale of “Scheduled Leadership Behaviors” with the aim of revealing the suitability of the model to the data set, the values of $\Delta 2 / df$, GFI, CFI, RMSEA and AGFI were taken into account. Fit indices and values ($\Delta 2 / df$, GFI, CFI, RMSEA, and AGFI) obtained in the context of this study and the reference values for these fit indices are presented in Table 6 (Çokluk et al., 2016; Karagöz, 2016; Meydan & Şeşen, 2011; Schermelleh-Engel, Moosbrugger & Müller, 2003).

Table 6. Fit Indices of SLBSSA's confirmatory factor analysis

	χ^2/df	CFI	RMSEA	GFI	AGFI
Proposed Model	1107,839 / 435=2,547	1,00	0,06	1,00	1,00
Acceptable Compliance Values	≤ 5	$\geq 0,90$	0,06-0,08	0,85-0,89	085-0,89
Good Compatibility Value	≤ 3	$\geq 0,97$	$\leq 0,05$	$\geq 0,90$	$\geq 0,90$

Once the results of SLBSSA's scale confirmatory factor analysis are analysed, the $\Delta 2 / df$ value shows that it has a good fit indices value. Since the values of CFI, GFI, AGFI and RMSEA are within the acceptable range, the confirmatory factor analysis shows that the results are appropriate for the data set of the factor structure.

Discussion, Conclusion and Recommendations

This study has the feature of improving a scale aiming at revealing “School Administrators’ Scheduled Leadership Behaviours”. After adaptation studies about “Scheduled Leadership” in the field of education management (Hulpia, Devos & Rosseel, 2009), development studies were executed by Turkish academicians. In this study, it was aimed at developing “School Administrators’ Scheduled Leadership Behaviours Scale” in order to school principals’ scheduled leadership behaviours are to be determined basing on teachers’ views. The objective of this study is to improve the scale of “School Administrators’ Scheduled Leadership Behaviors.” After adaptation studies on “Scheduled Leadership” in the field of education management (Hulpia, Devos & Rosseel, 2009), development studies were carried out by Turkish academics. The aim of this study was to develop the “School Administrators Scheduled Leadership Behaviour Scale” in order to determine the planned leadership behavior of school principals on the basis of the views of teachers. The scale was composed of 30 items. “Improvement and Collaboration” dimension measures with 11 items, “Culture” dimension does with 7 items, “Vision and Responsibility” dimension measures with 7 items and “Opportunities and Chances” dimension does with 5 items.

The results of the analyses demonstrate that the overall (cumulative) variance rate of the explanatory factor is above the 30% rate accepted in behavioral sciences (69.11 percent) and is therefore sufficient. The variance ratios described by factors have a high distinguishing characteristics. The scale consisted of 30 items. “Improvement and Collaboration” dimension measures with 11 items, “Culture” dimension measures with 7 items, and “Vision and Responsibility” dimension measures with 7 items and ‘Opportunities and Opportunities’ dimension measures with 5 items.

As a result of the study, by means of both factor structure, reliability co-efficient of the scale and the findings about fit indices values obtained by confirmatory factor analysis, it was determined that teachers’ opinions are such as to be used to establish school principals’ scheduled leadership behaviours.

Innovations and changes have taken place every day in the understanding of management and leadership. As a result, many leadership approaches that address leadership in different dimensions and aspects take place in the literature. It is certain that new approaches to developments will take place in the literature. Changes in the validity and reliability of leadership in general and in private in the understanding of planned leadership will influence the results achieved by the scale. -By taking these changes into account, it is important to repeat the validation and reliability studies in the use of the scale in the future in terms of the scientific nature of the data.

In the literature, analyzing the scales aimed at measuring the planned leadership behaviors in the school environment and their relationship with the other adapted or non-adapted scales (Özdemir, 2012; Özer and Beycioğlu, 2013; Taştan and Oğuz, 2013), it has been shown that “School Organization Scheduled Leadership Scale” (SOSLS) is applicable to all levels of each school in the education system because it is relevant to all levels of education. Aslan and Ağıroğlu-Bakır (2015) have added a new scale to the literature with the ‘School Organization Scheduled Leadership Scale’ studies. A scale of high reliability and validity, consisting of 55 items and 5 factors, has been developed in the direction of the study. They were aimed at measuring the planned leadership of the school organization over the perceptions of teachers.

The ‘School Principals' Scheduled Leadership Behaviors Scale’ was developed to show how teachers perceive the school principal in terms of their planned leadership behaviour. Studies on the validity and reliability of the scale may be repeated in different sample groups.

Improvement - collaboration, culture, vision - responsibility and opportunities - chances, subdimensions of Scheduled Leadership Behaviours Scale, can be correlated with the other school organisation subjects and the scale can be benefitted in the future studies.

The aim was to show how teachers view shared leadership behaviors in the school administrator through the 'School Administrators' Shared Leadership Behaviors Scale' developed. In this way, the scale shows a feature that encompasses the purpose, structure, process and atmosphere of the organization. The scale structure created by the results of the factor analysis has also maintained its quality in terms of scope and has acquired a useful and objective quality.

Studies on the validity and reliability of the scale may be repeated in different sample groups. Shared leadership behaviors can benefit from the scale of advanced studies by associating developmental sub-dimensions-cooperation, culture, vision-responsibility and opportunities-with other issues of school organisation. In addition, validation and reliability studies related to the scale can be repeated in different sample groups and at the higher education level.

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Global Literacy Skills in Picture Story Book Reading Activities Implemented to 48-66 Month-Old Children

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Abstract

This study aimed to identify how preschool teachers included the concepts of global literacy in picture story book reading activities they frequently perform in the flow of daily education programs. For this purpose, the relationship between global literacy and the achievements included in the Preschool Education Program (2013), picture story book reading processes and the listening and speaking processes in the preschool period was investigated. The research was designed as a case study, one of the qualitative research methods. One preschool teacher selected with the criterion sampling technique participated in the study. Semi-structured interview form, semi-structured observation form and documents were used as data collection techniques. Research data were analyzed by descriptive analysis and content analysis techniques. Based on the findings, it was concluded that very few of the picture story books selected by the teacher presented global literacy skills. In addition, the participating teacher was found to be inadequate in implementing picture story books activities during pre-reading and post-reading process and in associating global literacy skills with the language development process. Therefore, it is recommended that teachers are provided with professional training to increase their competence in relation to program and content adaptation, teaching process and global literacy skills.

Keywords: Preschool education, picture story books, global literacy, speaking, listening.

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Introduction

The 21st century has brought changes in the systems, atmospheres, technologies, economic structures and needs of societies. Innovations have become crucial in the steps taken to educate people so that societies can adapt to the changes that have emerged. Studies on the new skills to be developed have introduced various new concepts and enabled us to reconsider the previous definitions of these concepts. Kereluik, Mishra, Fahnoe and Terry (2013) collected these skills in three categories:

Foundational Knowledge: high scientific competences and content knowledge, cross disciplinary knowledge (mathematics, science, language, social sciences...etc.), digital literacy, disciplining the mind, the ability to transfer traditional knowledge, framework educational programs

Meta Knowledge: creativity, transformational skills, innovative thinking, originality, critical thinking, problem solving, decision-making

Humanistic Knowledge: ethics, social responsibility, empathy, reflective thinking, emotional intelligence, ability to manage emotions, citizenship, awareness and knowledge of different cultures, acceptance of and respect for differences, cooperation, communication

Schools are the most important institutions to prepare all individuals in the community for these new life skills. It will be easier to teach individuals these skills with innovative curricula and programs that will be developed in schools (Choo, 2018).

The need for including the 21st century skills in education started with the development of the European Qualifications Framework. Many new skills included in the European Qualifications have contributed to define the new learning human profile in the world (VQA, 2008). This led to rethink the concept of lifelong learning. With the help of a directive prepared in 2015, Turkey Qualifications Framework was developed and skills required for individuals to have for various occupations are listed here by taking the new century skills into consideration (VQA, 2015). An important step was taken by the Ministry of National Education in 2017 to create new programs and curricula that will support these skills in education programs. Today, reorganization is under way to include universal skills by adding new elective courses and regulations in educational programs.

In the light of the curriculum updates by the Ministry of National Education (MoNE), professional competencies of 21st century teachers have been identified and a framework has been developed (MoNE, 2017a). Professional competencies of teachers in the field of preschool education are also reorganized by including the 21st century skills (MoNE, 2017b). The early childhood period which is critical in the development of knowledge, skills and attitudes has become even more significant in providing education that covers the 21st century skills (Collins, 2008; Dillon, Ruane and Kavanagh, 2010; Ebbeck, 2006).

The first concept that we often encounter in regards to the skills of the new century is literacy. The concept of “literacy” is associated with the whole cycle starting from preschool period and covering all ages (Kurudayıoğlu and Tüzel, 2010). Although the concept of literacy has a different definition depending on where it is used, it usually means the expression of feelings, thoughts and desires fully and accurately by individuals by speaking or writing (Gee, 2000). At the same time, literacy involves interpreting and making sense of what is listened and read using own knowledge and past experiences (Lankshear and Knobel, 2003). Individuals with such literacy skills are expected to be creative, have respect for values and display understanding of differences when forming their own thoughts and expressing their emotions (Gee, 2000). Based on the concept of literacy, individuals with such skills should use these abilities not only for their own development but also for the development of the society they live in and sometimes for the development of the world (Güneş, 1997). In the 21st century, one of the most important type of literacy included in the overall concept is global literacy.

Global literacy is a type of literacy with multi-modalities and in addition to mastering basic literacy required to access universal knowledge, it includes components such as media literacy, political literacy, digital literacy, critical literacy and information literacy and requires mastery of foreign language(s) to follow the world (Carabain, Keulemans, van Gent and Spitz, 2012; Oğuz, 2007). Global literacy concept aims to raise a generation that can perceive the world by using senses, evaluate it with its own thinking system; act with the feeling of being a part of the society and the world and aim to create a more livable world with these qualities (Bennett, Cornwell, Al-lail and Schenck, 2012).

Early childhood is the period in which the foundations of literacy skills are established. Children encounter the concept of literacy starting from early ages, that is, during the early childhood period (Morrow, 2004). As a matter of fact, current early childhood education programs contain many components of global literacy concept (Ebbeck, 2006). However, the need to use, reproduce and develop these components in a conscious manner is becoming more and more urgent today. Preschool education program developed for 36-72 month-old children in Turkey in 2013 is used in preschool period. This program is the latest program that takes into account the global and universal values which is believed to include the foundations of 21st century skills (MoNE, 2013).

The preschool education program had been prepared before the European Competencies Framework and Teacher Competencies Framework came to the agenda in our country. However, examination of the basic features of the program shows that the program is based on some important points regarding the concept of global literacy. The main properties of the program cite that inquiry learning and development of creativity have precedence; use of daily life experiences and environmental opportunities is encouraged for educational purposes and cultural and universal values are taken into consideration. Hence, the concept of global literacy is addressed within the basic

principles of preschool education program. In addition, some acquisitions and indicators included in the preschool education program also refer to global literacy skills (e.g.: acquisition and indicators in regards to information literacy, global literacy and critical literacy are found in cognitive development area; acquisition and indicators in regards to digital literacy, information literacy, critical literacy are included in language development area) (MoNE, 2013). This can be regarded as an indication that activities related to global literacy skills can be done in the framework of the activities performed by teachers during their daily education programs in preschool education.

There are many studies on the concept of literacy in preschool period. These studies are generally integrated with the concept reading and writing readiness. However, currently there are no studies on the concept of global literacy in preschool period. In Turkey, the literature includes studies on the concepts of media literacy (Gündüz Kalan, 2011), World Citizenship (Ceylan, 2014) and information literacy (Akkoyunlu and Tuğrul, 2002). However, these studies were generally carried out with teachers and did not include ideas as to how these concepts can be taught to children. It is also observed that the studies carried out in this regard were often carried out at primary and secondary schools.

Picture story books are one of the materials that teachers can easily access and use in supporting their activities in preschool education. High quality picture story books cover many topics related to global literacy (Soyer, 2009). Picture story books are significant sources both in terms of providing children with rich language content and preparing them for the world by supporting them from different perspectives (Sever, 2006). Picture story books are also important since they provide literacy support to children with visuals, texts and linguistic arts. For this reason, establishing an association between global literacy and picture story books will ensure that children will come across these concepts more frequently and in ways that are more familiar to children.

This study was carried out with the aim identifying how preschool teachers included the concepts of global literacy in picture story book reading activities they frequently perform in the flow of daily education programs. For this purpose, answers were sought to the following questions:

1. In what way the Pre-School Education Program (2013) acquisitions include global literacy skills?
2. How are global literacy skills included in the picture story book reading processes in the preschool period?
3. What is the participating teacher's opinion about associating listening and speaking processes with the global literacy during the preschool period?

Method

Research Design

This study was designed with single case-holistic design which is one of the qualitative research methods. The single case-holistic design is used in studies where there is a single state and a single analysis (Yin, 2014). In addition, single case-holistic design is used to investigate situations that have not previously been studied on a particular situation, such as a school, an individual, a program (Yıldırım and Şimşek, 2013). There are no current studies on global literacy skills in the preschool period. However, the fundamental properties of the Preschool Education Program (2013) emphasize the necessity of global literacy skills under the heading “pays attention to cultural and universal values”. Since this study investigated a topic that has not been studied before -namely, the relationship between the picture story book reading process and the global literacy skills in the preschool period-based on the experiences of a single teacher, single case-holistic design was selected.

Participants

Criterion sampling technique was used when the participant of the research was selected. The criteria previously determined by the researchers are used in the criterion sampling method (Marshall and Rossman, 2014; Yıldırım and Şimşek, 2013). Criteria were determined in this study in line with the purpose and design of the study. The first and most important of these criteria was that the teachers in the sample should have awareness about global literacy and should attempt to associate this skill with picture story book reading process. This criterion was determined since it would not be possible for teachers to present healthy data about a subject they never knew and were aware of. The second criterion was volunteering to participate in the process of data collection on picture story book reading processes over a semester. The third criterion was the proximity of the school and the participating teacher so that the researchers could collect data regularly. The final criterion was the consent of the school management and the families related to this study. Based on these criteria, the researchers, who are an expert in the field of preschool education, visited the schools located in the center of a province in the Marmara region. A single teacher who met the specified criteria was identified. The 37 year-old female teacher who was identified to be the participant in the study has been working as a preschool teacher for 11 years. This teacher, who was included in the research process for a semester, had 18 children in her class.

Data Collection Technique

Semi-structured interview form, semi-structured observation form and documents were used as data collection technique in this study. Information on these data collection tools are provided below:

Semi-Structured Interview Form

This form was developed to determine the opinions of the preschool teacher who was the single participant of the study in relation to associations between listening and speaking processes and the global literacy. The questions of this form, developed based on the content of the research (Merriam, 2013), were prepared by taking the purpose of the research into account (Glesne, 2013). Relevant literature was reviewed in line with the purpose of the research and questions were developed for the interview form. The draft text of 10 questions in the semi-structured interview form was submitted to field experts for evaluation in terms of comprehensibility and content validity (Glesne, 2013). Field experts decided that the questions were suitable in terms of content validity and clarity. Then, a pilot implementation was conducted with a separate preschool teacher to check whether the questions were comprehensible for preschool teachers. Based on the piloting, necessary revisions were made and the interview form was finalized. The finalized semi-structured interview form consisted of two sections. The first section included a brief description of the interviewee, interviewer, date, venue, start and termination of the interview and the purpose of the interview. The second section included 11 interview questions. The first 10 of these 11 questions were related to the purpose of the research to determine how listening and speaking skills were associated with global literacy skills and what was done in this regard by the teacher. The last question enquired whether the participant wanted to share or express anything else.

Semi-Structured Observation Form

This form was developed to observe the activities performed by the teacher in the process of reading picture story books. The observation form consisted of eight probing questions associated with two main questions (four probing questions per main question). The main questions aimed to identify what was done during the pre-reading and post-reading process. Probing questions intended to observe what kind of activities were conducted during the pre and post reading process in relation to the components of global literacy such as cultural belonging, intercultural perspective, global citizenship and new literacy skills. An observation form was filled for each story book during the research process. At the end of the research process, a total of 35 semi-structured observation forms were obtained. This data collection tool was filled by the researchers.

Documents

The research documents consisted of the Pre-School Education Program Acquisitions (2013) and picture story books. A total of 63 acquisitions and 35 picture story books were used as documents.

Data Analysis

Study data were analyzed by descriptive analysis and content analysis techniques. The data on the first and second research questions were analyzed by descriptive analysis technique. The

descriptive analysis technique includes previously determined themes and data are summarized and interpreted according to these themes (Yıldırım and Şimşek, 2013). The data of this research were analyzed according to four predetermined themes. These themes were the components of the global literacy skills determined by literature review. These components and explanations about how they were used in this research are as follows:

Cultural belonging: Data related to this theme should include content that reflect a sense of belonging to Turkey, Turkish language and Turkish culture.

Intercultural perspective: Data on this theme should include positive comments in regards to understanding, recognizing and respecting different cultures other than the Turkish culture.

Global citizenship: Just like the cultural belonging component, the data on this theme should not advocate nationalism or the view that only the dominant culture is valuable. It should also not only include knowing or respecting different cultures. The data should go beyond these perspectives and have a content that reflects seeing the whole world as a single culture and taking responsibility as a citizen of the world.

New Literacy: Data on this theme should be based on activating the knowledge and perceptions acquired for the cultural belonging, intercultural perspective and global citizenship components. Data on this skill should include positive perceptions towards intercultural perspectives, positive efforts towards recognizing a different culture and concrete actions towards contributing to world culture.

Preschool Education Program (2013), the selected books and the observation form, which were used to collect data for this study, were analyzed descriptively according to these predetermined themes. Descriptive and content analysis were used in conjunction while analyzing the interview data collected from the interviews held with the teacher because the interview form questions were prepared according to the cultural belonging, intercultural perspective, global citizenship and new literacy components. Therefore, the analysis themes of these questions prepared for the components consisted of these four components according to the descriptive analysis. The answers provided by the teacher were coded by analyzing them with content analysis. These codes and their frequency values were classified under the component to which they were related. As a result of the analysis process, a total of 18 codes were obtained under the cultural belonging, intercultural perspective, global citizenship and new literacy categories.

Validity and Reliability of the Study

The steps taken to ensure the validity of the research were carried out under the titles of credibility, transferability, trustworthiness and confirmability (Lincoln and Guba, 1985):

Credibility

The research process lasted a whole semester to ensure the credibility of the research. In addition, diversification was provided by collecting data from four different data collection tools.

Transferability

In order to ensure the transferability of the research, the existing shortcomings in the literature in relation to global literacy skills in preschool period was revealed in a concrete manner. Thus, the reason of the study was conveyed clearly. In addition, detailed information was presented about the rationale of the research pattern, participant selection and sampling relationship and the process and details regarding the development of data collection tools.

Trustworthiness

Four different data collection tools were used to make the research trustworthy. The fact that these data collection tools were based on three different sources as documents, teacher and researchers can be regarded as proof that data were collected with different perspectives for research.

Confirmability

The findings are exemplified by direct quotations to ensure the confirmability/verifiability of the study. In this way, the findings were tried to be interpreted in a more concrete way

In addition to procedures cited above to ensure the validity of the study, support was received from another field expert to ensure the reliability of the research. The two researchers checked the consistency of the transcribed interview forms with the audio recordings for each interview. In addition, the analysis of the Pre-School Education Program Acquisitions (2013), the books and the semi-structured interview form was carried out by the two researchers. In case of coding differences, the researchers came to an agreement by discussing the codes together. As a result of the analysis process, the consistency between the two researchers was determined at the level of 90% (Miles and Huberman, 1994).

Results

This section includes the findings obtained from the data analysis and the interpretations for these findings. The section is presented under three headings corresponding to the research questions: “the place of global literacy skills in the Pre-School Education Program Acquisitions (2013)”, “the place of global literacy skills in pre-school picture story book reading processes” and “the participating teacher’s views on the association between listening and speaking processes and global literacy”.

The Place of Global Literacy Skills in the Pre-School Education Program Acquisitions (2013)

This heading provides the findings on the relationship between global literacy skills and Pre-School Education Program (2013). The relationship of global literacy skills with the Pre-School Education Program (2013) is considered only in regards to acquisition dimension. In general the program has a total of 63 acquisitions under five developmental areas: i cognitive development ($f=21$), language development ($f=12$), social and affective development ($f=17$), motor development ($f=5$) and self-care skills ($f=8$). It was identified that 19 out of these 63 acquisitions were related to global literacy skills. Table 1 presents the relationship of these acquisitions with the subcomponents of the global literacy skill:

Table I. Relationship between acquisitions and global literacy skills

Area of Development	Cultural belonging	Intercultural perspective	Global citizenship	New literacy skill
Cognitive development	Acquisition 21		Acquisition 1 Acquisition 2 Acquisition 17	Acquisition 19
Language development		Acquisition 5		
Social and affective development	Acquisition 1 Acquisition 11 Acquisition 15	Acquisition 4 Acquisition 8 Acquisition 9 Acquisition 16 Acquisition 17	Acquisition 6 Acquisition 12 Acquisition 13 Acquisition 14	Acquisition 5

Table 1 demonstrates that in terms of frequency, global literacy skills can be found in the Pre-School Education Program (2013) in social and affective development ($f=12$), cognitive development ($f=5$) and language development ($f=1$), respectively. In terms of sub-components of the global literacy skill, the least distribution was found in new literacy skill ($f=2$), while cultural belonging ($f=4$) and intercultural perspective ($f=5$) displayed equal distribution. The component with the highest frequency was found to be global citizenship ($f=7$). The acquisition on cultural belonging under the cognitive development area is as follows:

“Acquisition 21. Recognizes Atatürk and explains his importance for the Turkish society.” (MoNE, 2013: 23).

Acquisition 21 demonstrates that cultural belonging is served by highlighting the leader of the Turkish society. The indicators regarding this acquisition state that the importance of Atatürk for Turkish society and the innovations he brought should be mentioned. Considering that Atatürk is the leader of the Turkish society and he was identified with the Turkish culture, this acquisition is considered to be an important one in terms of cultural belonging. A similar acquisition related to Atatürk has been included in social and affective development area as follows:

“Acquisition 11. Takes responsibility/role in activities related to Atatürk.” (MoNE, 2013: 29).

In its indicators and explanations Acquisition 11 also requires students to express their feelings about Atatürk. This way, the knowledge gained in the cognitive field is integrated with the child's emotional world in the affective field to develop a positive attitude towards Atatürk. Considering the social importance of Atatürk, it can be argued that positive attitudes towards Atatürk will directly affect children's global identity. In this way, the children's sense belonging to their own culture will also increase.

As seen in Table 1, the effort to develop positive attitudes towards global identity is noteworthy in Acquisition 1 and Acquisition 15 of the social and affective development area. In these two complementary acquisitions, Acquisition 1 includes the following statement: "Acquisition 1. (The child) Introduces his/her characteristic features." (MoNE, 2013: 28).

This acquisition enables the child to introduce his/her own characteristic features. The child introduces his hair, the unique features of the skin color, mentions the difference in his/her interests and expectations. Acquisition 15 supports Acquisition 1.

"Acquisition 15. (The child) Has confidence in himself/herself." (MoNE, 2013: 30).

This acquisition aims to raise awareness about fact that from time to time, the child may understand and think differently from others as a result of the differences introduced in Acquisition 1 and that he/she should not have any insecurity about these differences. While it cannot be claimed that these two acquisitions directly serve cultural belonging, it is a known fact that children's characteristics in the cultural belonging dimension cannot be independent from their cultural identities. In this respect, it is believed that getting to know oneself accurately and having confidence in the self are crucial to ensure cultural belonging.

Another noteworthy point in Table 1 is the distribution of acquisitions for intercultural perspectives. No acquisitions related to interculturality was found in the cognitive domain. In language development, interculturality is only associated with the following expression in Acquisition 5: "Acquisition 5. *Uses language for communication.*" (MONE, 2013: 25).

Looking at the indicators and explanations for this acquisition in the program, it cannot be argued that it directly serves interculturality. However, it is believed that it can be associated with interculturality since it emphasizes communication and the important points during communicating; therefore, it is an important skill to acquire intercultural perspectives. Acquisitions related to intercultural perspective are mostly seen in the field of social and affective development in terms of frequency. These acquisitions can be listed as follows (MoNE, 2013: 28-30):

"Acquisition 4. Describes the feelings of others about an event or situation. "

"Acquisition 8. Respects differences."

“Acquisition 9. Explains different cultural features.”

“Acquisition 16. Explains that individuals have different roles and duties in social life.”

“Acquisition 17. Solves problems with others.”

The above acquisitions point that the 4th, 8th and 9th acquisitions directly serve intercultural perspective. Acquisition 16, on the other hand, may indirectly serve interculturality as it draws attention to the difference of responsibilities of each individual in the social order. This acquisition is also important in terms of explaining the possible differences among societies. Acquisition 17 is regarded to be indirectly related to interculturality, as it aims to eliminate possible communication problems that may arise in the face of differences in thoughts and in case of disagreements.

As Table 1 shows, a total of seven acquisition statements were identified in the cognitive and social and affective development areas related to global citizenship which is another component of the global literacy skill. The three acquisitions associated with the global citizenship component in the cognitive development area can be listed as follows (MoNE, 2013: 20-23):

“Acquisition 1. Pays attention to objects / situations / events.”

“Acquisition 2. Makes estimates about objects / situations / events.”

“Acquisition 17. Establishes a cause-effect relationship.”

As the above acquisitions demonstrate, it can be argued that they are not directly associated with global citizenship. However, the indirect relationship of these acquisitions with the global citizenship component cannot be ignored either; because preschool children need to have certain cognitive skills for events and situations, as in the acquisitions above, in order to become global citizens. In this respect, the program is not directly related to Global citizenship; however, it is thought to serve the necessary cognitive skills required for global citizenship.

As seen in Table 1, the distribution of development area in the global citizenship component is also noteworthy in the new literacy component. No acquisition was encountered in the field of language development for new literacy which is the utmost component of the global literacy skill. In addition, this component had the least frequency compared to other components. Only two acquisitions were associated with this component in the program. The first of these acquisitions was associated with the following statement in the field of cognitive development:

“Acquisition 19. Generates solutions to problem situations.” (MoNE, 2013: 23).

When looking at the indicators and explanations for this acquisition in the program, it can be argued that global literacy skill is in an indirect relationship with the new literacy component; because the acquisition aims to teach children how to identify the problem in their daily lives and then generate a solution by developing an original idea. In this respect, it is believed that this acquisition will

provide the necessary skills to become individuals with sophisticated global literacy skills and to be able to generate solutions as a global citizen. The same also apply to the acquisition in the field of social and affective development which was associated with the new literacy component.

“Acquisition 5. Demonstrates positive / negative feelings about an event or situation in appropriate ways.” (MoNE, 2013: 28).

It cannot be argued that this acquisition directly serves this component; however, it is believed to provide the necessary social and emotional awareness for this component.

The Place of Global Literacy Skills in Pre-School Picture Story Book Reading Processes

This heading provides the findings related to the relationship between global literacy skill and the process of reading picture story books at preschool. This section interprets the findings of 35 separate picture story books selected by the teacher to read to children for one semester. Attention was paid to selecting picture story books from different publishers to ensure diversity in this context. In addition, the activities carried out by the teacher in the pre-reading and post-reading process were also included in this section. The activities were not tabulated as a separate analysis but interpreted by associating the stories which they were used with. Table 2 presents the results of the analysis on the relationship between the content of picture story books and global literacy skill.

Table II. The relationship between picture story books and global literacy skill

Book Title	Cultural belonging	Intercultural perspective	Global citizenship	New Literacy
The Journey Home/Eve Yolculuk			11	
Blue City, Yellow City/Mavi Şehir Sarı Şehir		4	1	
Carl and the Meaning of Life/Carl ve Yaşamın Anlamı			2	
I took the Moon for a Walk/Ayı Yürüyüşe Çıkardım		2		
The Blue Whale/Mavi Balina			2	

As Table 2 demonstrates, only 5 out of these 35 picture story books were found to be related to global literacy skill. the remaining 28 books were found not to include any content that could be associated with global literacy skill. The titles of these 28 books are as follows: On a Beam of Light, South, Little Night Cat, Red Knit Cap Girl and the Reading Tree, How Does My Garden Grow, Knikkeruil, From a Small Seed to the Forest, I am a Very Clever Cat, Three Cats One Wish, Three Cats One Monster, The Cat Who Chases the Rainbow, I Want a Friend , The Brown Bear Who Wants To Be A Polar Bear, Stripes The Tiger, If I Were A Bird, The Gardener Mole And True Friend, A Perfect Shelter, The Great Adventure Of The Little Crumb, The Dog that Nino Didn’t Have, LARF, Perfect, Wish Tree, NuNu, The Blue and The Mud, Hair Tailor, They All Saw a Cat, Lonely Panda, Good Dragon, Bad Dragon.”

The books which were found to be associated with global literacy skill displayed in Table 2 had the most content related to the global citizenship component of the global literacy skill (f=16) in terms of frequency value. This component was followed by the intercultural perspective (f=6). When we look at the books in the order they are presented in Table 2, the following expressions on global citizenship were found in the picture story book named the Journey Home:

“The ice sea was melting. The polar bear wondered, ‘Where did all the ice go?’ He looked around ‘And where’s my food?’ He said to himself ‘I can’t stay here anymore’ and started swimming.

He soon arrived in a city where machines grunted and high buildings hid the sky.

“What are you doing?” asked the panda sitting on the dock. ‘I can’t live in the city’ said the panda to the polar bear, who went on a boat. ‘Take me with you, I will come with you.’

After a while, they came to a river that used to be surrounded by a forest. ‘There are no trees left for me to climb,’ the orangutan called to the boat. ‘The forest is disappearing.’ The panda and the polar bear looked around and found that he was right. ‘You can join us if you want,’ said the panda. ‘Maybe we can find a tree for you on the road.’

Orangutan suddenly asked what was behind the rock. ‘Shhh...’ said an elephant. ‘I’m trying to hide. Someone’s trying to steal my teeth.’ ‘Why you don’t come with us’ whispered the Panda.. ‘We can go very far from here.’

The polar bear shouted to Dodo, ‘We’re lost!’ ‘We were dragged away with our boat and we want to go back to our home.’ ‘Of course you can go back to your home,’ Dodo replied. ‘When?’ ‘You can return home when the trees start growing on Earth again, when the sea freezes again, when the cities are not getting bigger anymore and the hunt is over.’

The polar bear’s habitat is threatened. Due to global warming, the poles are warming up and the ice sea that supplies its food is melting.

Pandas feed only on bamboo. Due to the disappearance of bamboo forests, it is getting harder for them to find food.

Elephants are killed by ivory hunters. In addition, the destruction of their living spaces threatens their future.

The forests, the home of the orangutan are disappearing. Forests are decreasing day by day due to excessive tree cutting.

The dodo bird is extinct. There are no Dodo birds anymore, with overfishing and loss of their habitats.”

As seen from the above excerpts from the story *The Journey Home*, the story explains what can global warming and harming the animals and trees do to the earth. The story book tries to raise awareness about the consequences of making the earth unlivable for living things. In this respect, the script emphasizes that children should be concerned about all living things in the world as a global citizen without discrimination. In this respect, it is thought that the storybook serves global citizenship significantly. The teacher tried to strengthen this relationship by implementing a post-reading activity as reflected in the observation form:

“After the story, the teacher shows the cards depicting the actual visuals of the polar bear, panda, elephant, orangutan and the Dodo bird. Then demonstrating these cards one by one, the teacher provides the following explanations.

‘The polar bear’s habitat is endangered.’ Due to global warming, the poles are warming and the ice sea which supplies its food is melting.

Pandas feed only on bamboo. Due to the disappearance of bamboo forests, it is getting harder for them to find food.

Elephants are killed by ivory hunters. In addition, the destruction of their habitats threatens their future.

The home of the orangutan, the forests are fast disappearing. Forests are decreasing day by day due to excessive logging.

The dodo bird is extinct. There are no Dodo birds anymore due to overfishing and destruction of their habitats.”

The teacher remarks that an important effect of global warming is related to the destruction of the habitats of some living things and tells that if we do not use our resources correctly, more creatures will be extinct in the future, that is, we will not be able to see them again.

The teacher asks children about the most important rule to slow down the effects of global warming.

She reminds children to extinguish the lights at home when they are done and not to use water excessively. (Researcher, semi-structured observation form).

As the above activity about the *Journey Home* shows, the teacher tried to guide children to question the text. She also imposed responsibilities on the children about what they should be aware in their daily lives in order to become global citizens. Another story with content related to the global citizenship component is the *Blue City, Yellow City*. It was observed that the teacher implemented the following pre-reading activity:

“Before reading, the teacher shows the children a visual on the computer (a photo with children from different parts of the world). Children are told to pay attention to the children in this photo and think where these children might be living.

The teacher then gives the children drawing papers and tells them to draw what kind of homes they think these children may be living.

Children see that all the houses are drawn are different from one another. Then, the children are asked about the children living in these houses and told to add the children in their pictures. Children realize that the children they have drawn are also different from one another.

Teacher explains that all children living in the world sometimes have the same characteristics but also exhibit different characteristics as well. Attention is drawn to how different the classmates are from one another. The teacher moves on the reading activity by saying, "Now children, let's respect each other and listen to our story without disturbing each other." (Researcher, semi-structured observation form).

As the above activity shows, during the pre-reading activity, the teacher drew attention to the concepts of respect and empathy in relation to the content of the text. The following statements about global citizenship are included in this storybook:

“The bridge brought them together once again, but this time not to fight, but to apologize to each other. And the owners of the two cities decided to paint the bridge in all the colors they could imagine.”

As seen in the above excerpt, global citizenship skill is discussed in the book in terms of communication problems among people and conflict resolution. In addition to the global citizenship component, the book addresses intercultural perspective with the following statements:

“The contention spread to all the inhabitants of the blue and yellow city. On both sides, those who had the courage to come from the opposite shore were mocked.

The colors became so important that those in the yellow city no longer bought umbrellas because they were all blue. Likewise, those in the blue city were no longer wearing shoes because they were all yellow.

Every morning it was either completely yellow or completely blue, and it was necessary to repaint half of it. People were making insults from one shore to another.

There was controversy even among people of the same color. One day, one of these discussions got out of hand and people started fighting over the bridge with paint buckets in their hands.”

The above excerpts from the book *Blue City Yellow City* shows that intercultural perspective is addressed in the book. But this point of view is not related to providing an intercultural perspective. This story is believed to be significant since it demonstrates what intercultural perspective should not embody by concretizing the concepts of lack of interpersonal empathy, lack of respect for others and opposition for differences. At the end of the reading process, the teacher attempted to underscore this point of view with the following activity:

“The teacher reads the picture story book and then asks the children to summarize the book by taking the floor. She shows the pictures of the book in order and help the children remember what happened on the page. The teacher draws attention to the fight in the blue and yellow city and asks what's going on. She mentions that in some countries, unfortunately, people fight with each other because of conflicts and talks about the negative aspects of wars. She says that disagreements will be resolved if people approach each other with understanding and behave with more reacceptance. She then draws attention to the ending and allows children to pay attention to how people understood each other at the end of the book. She emphasizes that this understanding ended the fight between them and solved the problems. She ends the activity by remarking that wars will never happen if we respect others and their lives despite our differences.” (Researcher, semi-structured observation form).

Another story in Table 2 related to global literacy is *Carl and the Meaning of Life*. This story contains only the following content in relation to global citizenship:

“Mouse, squirrel, rabbit, fox and roach; we all need one another. Our needs them... Everything is connected, you are connected to everything!

What can you do for Earth?

Even if they are teeny weenie, every creature adds value to the Earth with its existence”.

The above excerpts include content that will activate children as global citizens. A responsibility is assigned to children to protect the Earth and the creatures living in it. Another book that tries to raise awareness of global citizenship in relation to living creatures in nature is the *Blue Whale*. This book addresses global citizenship as follows:

“Blue whales are majestic and smart creatures. They have feelings just like us. Just like the nature around us, blue whales deserve our admiration and care. Only then they can have the hope of living and reproducing in oceans, their natural habitats.

Blue whales are among the protected species and whaling is banned worldwide. Unfortunately, these animals, whose numbers have already decreased, are under threat due to many reasons such as possibility of colliding with ships, destruction of their habitats, pollution of the seas and entanglement in commercial fishing nets.”

As in the story of Carl and the Meaning of Life, global citizenship has been associated with the responsibility to protect living creatures on earth in the Blue Whale story. As Table 2 shows, the last story associated with the global literacy skill is the story book “I Took the Moon for a Walk”. This story includes the intercultural perspective of global literacy as follows:

“The moon is the good friend of farmers and gardeners. Those who adhere to traditional methods sow their seeds as the moon grows and replace the seedlings as the moon grows. Festivals dedicated to Moon are held in most societies. The Chinese lunar festival is celebrated in the harvest month. This is the time of full moon in autumn / fall.

Celtic communities and Indians also celebrate the harvest month festival because, people want to express their gratitude to the earth during this period for the harvest and all living things. ”

In the above excerpt, taken from I Took the Moon for a Walk, intercultural perspective is presented through the harvest season. Harvest season and the activities in this season are regarded as a cultural phenomenon. This cultural phenomenon is explained through different communities and attention is drawn to intercultural similarities. At the end of this story, the teacher implemented the following activity:

“After the story, the teacher says that in some countries festivals/events are held based on the movements of the moon. She shows children a video of the moon’s movements. She emphasizes the full moon and says that during this period, farmers have festivals in order to offer their thanks to nature in autumn. In this event, they listen to music that is unique to their own culture, have traditional dances and consume foods that are unique to their own country. The teacher mentions that we do not have such festivals our country, but people living in other countries who organize such festivals should be respected.”(Researcher, semi-structured observation form).

As the observation form data point out, with this post-reading activity, the teacher aimed to have students comprehend intercultural similarities and differences.

The Participating Teacher’s Views on the Association Between Listening and Speaking Processes and the Global Literacy

This heading provides the participating teacher’s views on the teaching process for listening and reading skills in the preschool period. The relationship between global literacy skill and the teaching process for these two language skills are presented through the views of the teacher. In this section, the relationship between global literacy skill and listening skill/speaking skill is discussed separately. The result of the analysis of the teacher views regarding the relationship between listening skill and global literacy skill is presented in Table 3.

Table III. The relationship between listening and global literacy skill

Theme	Category	Code	f	
Listening Skill	Cultural belonging	Paying attention to pronunciation	1	
		Intercultural perspective	Songs that belong to Turkish culture	1
			Picture story books	1
	Global citizenship New Literacy		Project to learn about different cultures	2
			Presenting different cultures	1
			Supporting creative thinking	1
			Increasing awareness for music and sound	1

Table 3 demonstrates that a total of eight codes were obtained under four categories for the relationship between listening skills with global literacy skill. The teacher view in regards to the provision of “cultural belonging”, which is the first of these categories, is as follows:

“First of all, I pay attention to my pronunciation. If there are English words or something like that, I focus on using Turkish words more. I don't want to use many English words; I want to use Turkish words. For instance, the word "exit" in the class bothers me. I try to make children use it as "çıkış" as it is used in Turkish. I try to impose the Turkish culture. Turkish culture is found in the Turkish words that belong to us. (Teacher, semi-structured interview form).

The teacher's opinion on the provision of cultural belonging prominently emphasizes the pronunciation aspect. The way to ensure cultural belonging in teaching listening skills for the teacher is using the Turkish language free from the impact of foreign languages. She thinks that using the Turkish equivalents of foreign words contributes to students' sense of belonging to Turkish culture. This viewpoint may be related to ensuring cultural belonging; however, but it will not prove to be an adequate approach on its own. Intercultural perspective category reflects a broader and highly different perspective in the teaching process compared to cultural belonging. The first code Table 3 regarding the intercultural perspective category is “songs that belong to Turkish culture”. The teacher view on this code is as follows:

“I emphasize music to improve the intercultural perspective... These songs may be songs about April 23rd, about November 10th, songs related to Atatürk. I pay attention to these and choosing songs that reflect our culture.”(Teacher, semi-structured interview form).

As the above view shows, the teacher thinks that intercultural perspective can only be infused with songs belonging to Turkish culture. The events embellished with songs can offer an appropriate experience for cultural belonging; however, it is not sufficient to provide intercultural perspectives. However, "picture story books" code reflected in the teacher opinion may serve intercultural perspective as follows:

“We intensity this especially in the week of April 23, but this year I have selected the 100 days project based on countries. At first, I will do something in terms of the fusion of Turkish and foreign children by talking about flags, languages and games of the countries that will take part in this project. I want my students to learn a few things about different cultures, a few words from different countries, how to say hello etc.” (Teacher, semi-structured interview form).

The teacher tries to give students a different perspective by implementing the 100 days project. It is believed that this project, which aims to increase awareness towards different cultures, serves intercultural perspective significantly. The following opinion regarding the details of the project points to the efforts to provide an intercultural perspective:

“I have selected 20 countries. I mean we are selecting. My colleagues will implement it too. We will study one country each week. For example, we will learn about the flag of the country on the first day, the cultural meal on the second day, the dances on the third day, the capital of the country or something like that on the fourth day and we will do art activities about what they have learned on the fifth day. We will exhibit our work after 100 days. We will ensure that the work is exhibited to children, their families and the community. This way, they will be familiar with different cultures, both visually and auditory.”(Teacher, semi-structured interview form).

The details of the above project that will be carried out by studying 20 countries demonstrate the competence of the teacher to associate intercultural perspective with the teaching process. In addition, the competence of the teacher in associating the intercultural perspectives with listening Skill is reflected in “picture story books” code as follows:

“In every culture, children are children. Regardless of religion, language or race, a child is a child in every respect. I try to include differences in stories so that they can learn about different cultures. I talk about the pictures and different foreign words in the stories, I talk about how the child in the picture is different. Or if there is a foreign word in the texts, I try to give them details such as what this word means and which language it is. For example, I mention that the author of the book I am reading to them is foreign. When I read books from different culture, I mention it to them by saying talking this one is a British writer, a German writer, etc.” (Teacher, semi-structured interview form).

The classroom activity discussed above shows that the teacher uses picture story books in associating intercultural perspective with listening skills. Considering the age groups of children and the multi-layered structure of picture story books, it can be argued that this approach is important in terms of associating intercultural perspectives.

Another category in Table 3 is “global citizenship”. A single code was obtained for this category. The teacher expressed that she associates global citizenship with listening skills in this code “presenting different cultures:

“In order to become global citizens, the children must be open to the world, in the developing society. I reflect this view through videos, world maps or by simply bringing the globe to the classroom to show the children that there is this country here, this country is there. For example, there are some students who go abroad; they tell us about the places they go. In this way, they also get to know different cultures. How people greet each other in the countries they go, I am having them listen some simple language items in different languages.” (Teacher, semi-structured interview form).

The teacher opinion presented above shows that the teacher did not implement an activity related to global citizenship that was different from what was already done for intercultural perspective. It is thought that the teacher does not have enough information about global citizenship. The teacher was found to approach culture with a cultural centralist perspective rather than regarding the whole world as a global culture. The low awareness level of the teacher regarding global citizenship is also noteworthy in the code "increasing awareness for music and sound" in "new literacy" category presented in Table 3. The view of the teacher in regards to this code is as follows:

“And now I make my students listen to different music that comes to my mind, for example, or I have them listen to mechanical sounds. What could be going on here? Who could be using this tool? I have them listen to mechanical sounds as only audio without turning on the video. Or I'm trying to have them guess what those musical instruments are. I speak about other cultures as well.”(Teacher, semi-structured interview form).

As can be seen, the teacher believes that this practice associates listening skills with new literacy, however it does not serve global literacy skill. This activity can only be associated with the hearing and perception dimensions of listening skills. However, the teacher's belief that this practice relates global literacy skill to new literacy dimension indicates that she has low competence in this area. On the other hand, "supporting creative thinking" the code in the new literacy category in Table 3 is an indicator that the teacher has a certain level of knowledge about this subject.

“I want my students to be creative. I want them to think and decide at first before they do something. I do not want to interfere with creativity very much. I do not want to intervene much when children tell the stories. I do not want to correct them by saying “it wasn't the moon there, it was the sun”, I am trying not to kill their creativity, because they are preschool children, so I try not to kill their creativity. In other words, competition will develop with creativity in the global world. It will evolve by using technology.”(Teacher, semi-structured interview form).

The teacher's view presented above shows that while she did not concretely express what she implemented in the classroom in relation to new literacy or how she related it to listening skills, the teacher pointed out the importance of creativity. It can be argued that while attempts to develop

children's creative thinking skills cannot be associated with new literacy skill directly, it is necessary to generate outcomes related to new literacy.

Speaking is another language skill associated with global literacy. Table 4 presents the analyses of participating teacher's opinions on the relationship between speaking skills and global literacy skill.

Table IV. Associations between speaking skills and global literacy skill

Theme	Category	Code	f
Speaking Skill	Cultural belonging	Using Turkish words	1
		Intercultural perspective	Introducing different languages
	Listening carefully		1
	Exchanging words		1
	Chatting with foreign parents		1
	Global citizenship		Awareness regarding differences
	New Literacy	Reading time	1
		Show differences with the help of books	1
		Choosing current books	1

Table 4 demonstrates a total of ten codes under four categories for the relationship between speaking skills and global literacy skill. "Using Turkish words" code for the relationship between cultural belonging and speaking skills was reflected in the teacher view as shown:

"For example, I try to correct my pronunciation a little. Or something they learn as vocabulary or they see something in a video in English, but I prefer them to use the word "kedi" instead of "cat" when they tell stories. I don't want them to say "Oh, this is a cat." I want my students to speak Turkish if I'm doing a Turkish activity." (Teacher, semi-structured interview form).

The teacher opinion given above demonstrates that the only way for this teacher to ensure the cultural belonging for children is to speak Turkish in the classroom in a manner that is free from the influence of any foreign languages and to ensure that children also talk in this way. Apart from this, no other code related to cultural belonging was identified. In this respect, it can be argued that the teacher has a limited perspective on associating cultural belonging with speaking skills. This limited view towards cultural belonging was not observed in the "intercultural perspective" category in Table 3. In regards to "introducing different languages" code in association with intercultural perspective, the teacher expressed the following:

"I give lessons in English or other languages when necessary. I also have an English teaching certificate. I also like to work with children in different languages. I teach English words. But first I start with our own culture. As I mentioned before, I teach how to say hello in Japanese, how to say hello in different cultures, I teach these and have my students pronounce the new words. We listen and we pronounce the new words after listening."(Teacher, semi-structured interview form).

The teacher view demonstrates that she tries to draw attention to the differences in language use while associating speaking skills with intercultural perspective. This aim to show the difference in languages was reflected in her views as follows:

“In this case, I usually have my students listen to another language to make them realize that this use is different, and I chat over those differences. Or I speak English myself, making them realize that I speak a different language.”(Teacher, semi-structured interview form).

The effort of the teacher to have her students realize the differences in languages is also the basis of the “listening carefully” code in Table 3. The teacher’s opinion regarding this code is as follows:

“I had one Iraqi student last year. For example, he did not know the exact Turkish words, he could do nothing(in the classroom). When he first arrived, I helped him integrate with other students by saying “children, we cannot understand him, he cannot speak our language. Gradually listen to what he means, how water is called in his language, listen to your friend. When you listen to your friend, you can answer him. ” In the end, he increased his Turkish skills. Other students understood, for example, what Ladin wanted to say. That way I asked them to listen at first and reinforced their behavior.”(Teacher, semi-structured interview form).

The above view shows that in the opinion of this teacher, mutual communication and effective listening are important for intercultural perspective. As a matter of fact, the point that the teacher tries to emphasize is not just listening skills; but understanding the other person correctly and expressing oneself effectively. In this respect, it can be argued that this code serves intercultural perspective. It is thought that inviting foreign parents to class and conversing with them will also contribute to the development of the intercultural perspective and children will have opportunities to understand people from different cultures. The code "exchanging words" in Table 3 exemplifies this contribution as follows:

“For instance I used to say: Look, Ladin said this, and now you repeat it, Eralp, you repeat it again. By doing this, I made sure that he also learned new words from his friends in the classroom and I ensured that they communicated.”(Teacher, semi-structured interview form).

For the teacher, effective listening contributed to intercultural perspective by teaching new vocabulary. Considering that it is important to understand the expressions in a different language in order to understand the elements related to that culture, it can be argued that this teaching practice serves intercultural perspective. This sensitivity of the teacher to understand and recognize different languages is reflected in the “awareness regarding differences” code under global citizenship category:

“So I try to raise awareness that there is not only Turkish out there in the world. That’s why I selected different countries (for the project). Every country has a different language, different ways of

communication. The children should not think that they can communicate in Turkish when he goes to Germany. Every country is different. I try to raise awareness about this. At least they can keep that (knowledge) in mind so they can say "I will learn German, I will learn English, I will learn French, Russian." (Teacher, semi-structured interview form).

It was observed that teacher's classroom practices for associating global citizenship with speaking skills were no different from the practices implemented about intercultural perspective.

The last category in Table 3 is "new literacy". Three different codes were identified for this category. As a matter of fact, all 3 codes were related to books and reading. The teacher was found to associate the new literacy skill with speaking skill through books as can be seen in the statement below:

"I'm trying to direct new literacy to books. In particular, I organize a reading time to ensure this. Every child buys a book and comes to the classroom or brings it from home. They read their books silently; I establish a group and have them talk about their books. I think we can overcome self-confidence issues through books, I think we can improve." (Teacher, semi-structured interview form).

As the above explanation demonstrates, the teacher stated that she associated new literacy and speaking skills through reading time. It is obvious that reading alone does not serve a skill like new literacy which implies action; however, the teacher also referred to self-confidence while expressing her opinion. The teacher stated that she aimed to improve children's self-confidence with the help of the activities she carried out during the reading time. Self-confidence is believed to be one of the requirements for children to find solutions to world problems as global citizens. The teacher view on "showing differences with the help of books" code in the new literacy category could not go beyond introducing different cultures and countries. Therefore, it was determined that the practice specified in the relevant code did not serve the new literacy skill. On the other hand, "Choosing current books" code in the new literacy category was found important in terms of associating speaking skills with global literacy skills. The teacher view on this code is as follows:

"... Simple, very simple books will not attract children's attention, as we call them old tales, or books on monsters or wolves (as the tradition), I don't mean these, not that style. I am talking about books that will open their horizons; with fewer texts and more pictures, the books that will develop their language skills. And we recently bought diverse books, which include topics such as respect for differences, inclusion and children's rights. We try to use these. We often find these books on Instagram, based on the suggestions of some influencers." (Teacher, semi-structured interview form).

In her view above, the teacher highlighted important points for global literacy. The fact that the selected books contain current topics and comply with the conditions of the current era, can contribute to keeping children up to date with reality. In addition, the teacher stated that the selected

books included respect for differences, children's rights and inclusion. Transferring these issues with books serves only the global citizenship component rather than the new literacy. However, the teacher's contribution in raising awareness to mobilize children about world problems cannot be ignored.

Discussion, Conclusion and Recommendations

This study aimed to determine how preschool teachers included global literacy concepts in picture story book reading activities that they frequently perform in the flow of daily education. For this purpose, the relationship between global literacy and the Preschool Education Program Acquisitions (2013), the picture story book reading processes and the listening and speaking processes in the preschool period was investigated.

There are many studies on picture story books in preschool period (Dağlıoğlu and Çamlıbel Çakmak, 2009; Gönen, Katrancı, Uygun ve Uçuş, 2011; Gönen, Uludağ, Tüfekçi ve Tanrıbuyurdu, 2014; Kılıç, Değirmenci, Ünsal and Balat, 2017; Körükçü 2012, Turan, Gönen and Aydos, 2017; Turan and Ulutaş, 2016; Veziroğlu and Gönen, 2012). However, there are no studies on global literacy skill in the field of preschool education and lack of studies in this regard may be related both to novelty of this topic and lack of attention to the topic in our country. Existing studies on this subject were conducted in fields such as social studies education (Bulut and Çakmak, 2019), science education (Çelik, 2016) and social studies education (Bektaş, Sellum and Polat, 2019). This study is the first study is thought to be significant since it is the first study that investigates the global literacy skill in preschool education and unlike other studies conducted in different fields, it is a research on associating picture story book reading process with the global literacy concept.

The findings related to the Preschool Education Program (2013) show that cognitive and affective development domains do not fully support each other. However, it is known that components of knowledge, emotion and behavior are needed for an attitude to emerge. Therefore, an emotional and linguistic acquisition should principally be supported by an acquisition in the cognitive dimension. An attitude can only be developed when an acquisition included in emotional and linguistic dimensions can be associated with another acquisition in the cognitive dimension. In this regard, it is concluded that the program serves global literacy skills on the basis of development areas, but does not have unity in terms of the emergence of relevant behaviors. Yet, the basic features of the program, includes the following statement about consideration of global and universal values: *“It is important for children to recognize the values of the society they live in and to adopt cultural and universal values, so that they grow up as responsible individuals. In this respect, the program encourages respect for differences and gaining experiences about living together with individuals with different characteristics. In the program, values education is not considered as a separate area, but it is emphasized in a holistic way along with the acquisitions and indicators.”* (MoNE, 2013: 17).

Based on the findings related to picture story book reading process, it was concluded that most of the books selected during one semester were not suitable to develop global literacy skill. Few of the selected books were found to be related to the global literacy skill. It is obvious that even these books do not contain all the components of the global literacy skill. It was also found that the existing components are disproportionately distributed in these books. Therefore, the relationship between these selected books and global literacy skill is thought to be random. The results of the research by Güzelyurt, Dokay, Güven, Yesugey and Çini (2019) stating that teachers were not equipped to select books according to specified goals support the results of this study. According to Güzelyurt et al. (2019), preschool teachers are insufficient to use children's books to support skills.

The findings related to the picture story book reading process activities demonstrated that pre-reading and post-reading activities were carried out for a limited number of the texts used in the classroom. Based on this finding, it was concluded that the teacher neglected or could not perform not only the activities on global literacy, but also the pre-reading and post-reading activities that should have been implemented for the reading process. It was concluded that this situation, caused either by negligence or incompetence on the part of the teacher, resulted in not fulfilling the reading processes satisfactorily. Pre-reading activities contribute to the reading process via choosing a book suitable for the target audience, determining the words and sounds suitable for children, enlightening the points that need to be questioned about the content and improving the children's skills in estimation (Akoğlu, 2016). It is a known fact that post-reading activities are as important as the pre-reading activities in the reading process. Especially, post-reading activities are required to ensure that acquisitions are permanent (Er, 2016).

Based on the findings of the participating teacher's views on associating listening and speaking skills with global literacy skill, it was concluded that intercultural perspective was associated with the language teaching process to serve its purpose. However, the same cannot be claimed for cultural belonging, global citizenship and new literacy. The teacher's inability to associate global citizenship and new literacy components with the language teaching process is conspicuous. The reason for this insufficiency may be related to the fact that the teacher regards all these two components as being the same and cannot differentiate among them. This lack of knowledge of the content and purpose of the components raises the problem of effectively linking global literacy skill to the teaching process.

Based on the research findings, it was also found that the program and the teaching process were not linked to one another. The Pre-School Education Program (2013) includes acquisitions for different global literacy components. There is an incompatibility when it comes to teacher's views on speaking and listening skills and the findings regarding the reading processes. It was determined that the teacher did not take into account the Pre-School Education Program (2013) when choosing the books or performing language teaching processes. However, when choosing a book for children, a

preschool teacher should be able to link the book with the program (Güzelyurt and Özkan, 2018). This reality is reflected in the results of different studies conducted in the literature (Deretarla Gül and Bal, 2006; Ergül, Karaman, Akoğlu, Tufan, Dolunay Sarıca, and Bahap Kudret, 2014) that preschool teachers have low competence in teaching early literacy and language skills. This disconnection between the program and the teaching process is considered to be a major obstacle to the acquisition of global literacy skill.

The following suggestions can be made based on the research findings:

- Pre-School Education Program (2013) includes global literacy skill as an essential skill. It is determined that the concepts related to global literacy are included in the acquisitions as well; however, these acquisitions do not cover all areas of development. Verifying that the global literacy skill acquisitions support each other in all areas of development can ensure that students will acquire the relevant attitudes towards global literacy skills.
- The study findings revealed the problems about selecting picture story books for preschool children. The most important problem in this regard was related to the fact that most of the books did not include the global literacy skills. In this respect, there is a shortcoming of books in preschool period with content that will serve the global literacy skills. To eliminate this problem, publishing houses can be directed to produce story books that will serve the basic features of the Preschool Education Program (2013). In this way, it can be ensured that preschool children can benefit from picture story books to support their global literacy skills.
- It was found that the participating teacher was not competent to select books with suitable content to serve global literacy skills. For this reason, it is necessary to increase teacher competencies in selecting books with suitable content compatible with their purpose. In addition, teachers can be trained on material production in case they have problems finding picture storybooks that can be used to improve global literacy skills. Thus, teachers can create picture story books according to their daily acquisition and indicators with suitable content that will also support the program acquisitions.
- Based on the findings, it was determined that the participating teacher was not competent about the process of implementing activities. It was observed that she was either negligent or inadequate especially in regards to pre-reading and post-reading activities. In order to overcome this problem, teacher trainings can be organized in relation to global literacy skills to improve teacher competences on managing activity

processes, the significance and necessity of pre and post reading activities, the relationship between activities and content.

- The findings of the study revealed that the participating teacher had shortcomings in associating listening and speaking skills with global literacy skills. This shortcoming was thought to stem directly from lack of knowledge about global literacy skills and its components. It is believed that training is needed to increase teachers' awareness in global literacy in order to eliminate the shortcomings in this area and help them effectively associate language skills with global literacy skills.
- Another problem revealed by the research findings was the inability on the part of the teacher to associate the activity content with the program. This disconnection between the program and the teaching process is considered to be a major obstacle in teaching global literacy skills. This obstacle can only be eliminated by increasing teacher awareness about the program and the teaching process.
- The literature shows that there are no studies on the concept of global literacy in the field of pre-school education. In this regard, researchers are urged to conduct in-depth studies with larger samples on teacher competencies, activity contents and learning processes among other topics relevant to global literacy skills.

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The Opinions of Prospective Teachers on Using Folk Songs in Social Studies Teaching

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Abstract

The social studies course is one of the most appropriate courses for individuals to acquire social and cultural experiences and to have knowledge and experience in these subjects. The social studies course contains a lot of knowledge, skills, and values to enable the individual to know himself and gain a social identity. It is seen how a society expresses its feelings and emotions at different times, on sad or happy days through folk songs, which have an essential place among the literary products used in the course. This study, which aimed to determine the opinions of the prospective social studies teachers regarding the use of folk songs in social studies courses, was carried out with 16 prospective social studies teachers. In this study, a semi-structured interview form was used to collect data. Explanatory and inferential codes that emerged during the analysis were used to explain the qualitative data and relationships. In line with the data obtained, prospective teachers stated that they found the use of folk song-supported teaching activities in social studies teaching useful in ensuring permanence, drawing students' attention, and being fun. They also expressed that it has benefits such as giving an idea about our national culture, presenting values to students, increasing intelligibility, ensuring that traditions and customs are conveyed from generation to generation, and providing students with different perspectives.

Keywords: Social studies, literary work, folk song, teacher

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Introduction

The Social Studies course is one of the most suitable courses for individuals to acquire social and cultural experiences and to have knowledge and experience in these fields. The course helps the individual to know himself and gain a social identity through various knowledge, skills, and values. These knowledge, skills, and values must be given to the students using different methods/techniques, or materials. Fredericks (2007) states that there is a secure link between social studies teaching and literature. At the same time, Demir & Akengin (2011) express that there may be a close relationship between the aims of the social studies course and the impression of literary work on students. Thus, in the social studies curriculum that the integrated structure of social studies was emphasized, and it was underlined that literary works such as legends, epics, fairy tales, proverbs, folk stories, folk songs, and poetry should be used in social studies education (MoNE, 2018). In this sense, one of the literary works used in the social studies course is a “folk song.”

Through folk songs, it can be observed how society feels and expresses its feelings at different times, on sad or happy days. It contributes to the development of thought by allowing the student to obtain experiences indirectly (Ozturk, Coskun Keskin & Otluglu, 2014). At the same time, several researchers argue that with the inclusion of Turkish folk songs selected following the social studies course’s objectives was found to be affecting students’ interests and attitudes towards the lesson positively, increasing the academic success, ensuring the permanence of the information, developing high-level and critical thinking skills, making the lesson fun, encouraging students to improve leadership characteristics (Boluçek, 2008; Donmez & Altıkulaç, 2014; McCall, 2010; Moore, 2007; Sánchez, 2007; Savage & Savage, 1993; Simsek, 2001; White & McCormack, 2006).

There are many studies in social studies that address the benefits of using literary works. It is crucial to investigate the knowledge, skills, and attitudes of prospective social studies teachers (PSSTs) on how to use folk songs in social studies teaching, as the studies about folk songs are limited in number. It is thought that folk songs in social studies will be beneficial and contribute to the field and teaching process.

Purpose of the Study

This study aims to determine the opinions of prospective social studies teachers regarding the use of folk songs as different teaching material in social studies teaching. The prospective social studies teachers were asked about the following questions by the purpose of the study:

- What are prospective social studies teachers perceptions about the use of “folk songs”?
- What are their opinions on learning areas suitable for using “folk songs” in social studies teaching?

- What are the contributions of using “folk songs” as teaching material to the social studies teaching?
- What can be the values that the use of “folk songs” as a teaching material will convey to them?
- What can be considered in the selection of “folk songs”?
- What are the points that they feel insufficient regarding the use of “folk songs” in social studies teaching?

In line with the research sub-objectives, it tried to reveal the prospective teachers' thoughts and experiences.

Method

In this section, the methodology followed in the process is explained. The design of the research, study group, data collection tools, and data analysis were discussed below.

Research Model

In this study, the qualitative method is used in which the researcher is actively involved in the process of collecting information, and the perceptions and events are presented in a natural and holistic perspective, and a verbal form (İslamoğlu, 2009; Yıldırım & Simsek, 2011). A basic qualitative research design was used in line with the research aims (Merriam, 2002). Merriam (2009) describes qualitative researchers conducting a basic qualitative study would be interested in (1) how people interpret their experiences, (2) how they construct their worlds, and (3) what meaning they attribute to their experiences. The overall purpose is to understand how people make sense of their lives and their experiences (p. 23). In line with the research sub-objectives, it tried to reveal the prospective teachers' thoughts and experiences. Thus, the study utilized from the basic qualitative research design to determine in-depth and multiple perspectives and to reach a judgment.

Study Group

The study group of the research was formed according to the appropriate case study technique based on purposive sampling method, which refers to the random selection of individuals and groups for the research (Sonmez & Alacapınar, 2014). A total of 16 prospective social studies teachers constitute the study group of this research, including nine women and seven men, who study at a state university in Turkey during the spring semester of the 2019-2020 academic year.

Data Collection

Before data collection, the researcher did a literature review and established a theoretical framework. The study data were collected through a semi-structured interview form prepared by the

researcher within the scope of the research purpose. A different expert opinion was also elicited to validate the interview form. Besides, a pilot study was conducted to clarify statements and ensure validity for the group. In the fall semester of the 2019-2020 academic year, two prospective social studies teachers studying at a state university in Turkey participated in the pilot study. They were asked questions in a draft semi-structured interview form consisting of 6 questions. To the feedback received from the prospective teachers in the pilot study, no correction was seen necessary on the questions. Then, the real study participants were informed about the study process. The interviews were recorded on the voice recorder to prevent data loss and ensure the reliability of the data. During the interview, the questions that were not understood by the prospective teachers were repeated. The qualitative data collected with the help of open-ended questions in the semi-structured interview form were analyzed with 'descriptive analysis' methods.

Data Analysis

In the research, the data obtained from the interviews with the participants were transcribed and analyzed. In this sense, descriptive analysis method, in which direct quotations are frequently used, was used to reflect the opinions of the participants in an effective way (Yıldırım & Simsek, 2011). There were four stages in the data analysis: coding the data, determining the themes in the coded data, organizing the codes and themes, and defining and interpreting the findings (Yıldırım & Simsek, 2011). In the analysis process, the researcher firstly analyzed the interview forms. In the analysis of participants' opinions, groups were made according to the similarity of the expressions. The expressions were presented with the frequencies in tables. The codes and findings obtained in the study were supported by direct excerpts from the teachers' responses to the questions in the interview form. Teachers' real names were not used in the study, and they were coded as PT1, PT2, PT3 ... PT13.

Validity is defined as the truth of findings, and the consistency and repeatability of these findings are defined as reliability (Yıldırım & Simsek, 2011). To ensure the validity and reliability of this research, a) in the content analysis, a researcher and a field expert individually examined each form of opinion, and in cases where different statements were found, the relevant data collection tool was examined together, and the relevant analysis unit was rearranged, b) the data were analyzed and presented to the teachers for the approval of the participants, c) the similarity ratios of the data set encoded by more than one encoder are essential in terms of eliminating individual influences and determining reliability (Fidan & Ozturk, 2015; Bozan & Ekinci, 2020). The reliability coefficient was calculated by using the formula $[(\text{Reliability} = \text{Consensus} / (\text{Consensus} + \text{Disagreement}))]$ developed by Miles and Huberman (1994). The reliability of the research was determined as 86%. According to Yıldırım & Simsek (2011), when it is 70%, it is considered to be reliable.

Findings

This section presents the findings obtained from the interviews with the prospective teachers on the use of folk songs as different teaching material.

1. Prospective Social Studies Teachers' Perceptions of Using "Folk Songs"

Prospective teachers were asked, "What is a folk song?". The tables obtained from the opinions of the prospective social studies teachers and quotations are below.

Table 1. Perceptions of the prospective social studies teachers regarding the use of folk songs

What is a folk song? It is...	f
Expressing emotions (PT1, PT3, PT6, PT7, PT9, PT10, PT12, PT13, PT14, PT16)	10
Reflection of culture (PT3, PT5, PT8, PT10, PT11, PT16)	6
A product of oral literature (PT6, PT7, PT11)	3
A real counterpart in daily life (PT2, PT6, PT15)	3
An anonymous literary genre (PT1, PT2, PT15)	3
Other* (PT4, PT10, PT11)	3

*The poetry of society, the reflection of the rooted national culture, reflecting the values.

According to Table 1, the prospective social studies teachers generally defined folk songs as expressing emotions (f=10), and reflection of culture (f=6). At the same time, it was observed that the number of prospective teachers who answered it as a product of oral literature (f=3), a real counterpart in daily life (f=3), and an anonymous literary genre (f=3) was equal.

Below are examples from the opinions of the prospective social studies teachers:

"Folk song is the transfer of people's feelings to the ear with a melody" (PT3).

"Folk song is a collection of melodies reflecting the culture of Turkish society." (PT4).

"Folk songs reflect the feelings of people; it contains every emotion that people can feel. (PT6).

2. Opinions of Prospective Social Studies Teachers for Learning Areas Suitable for the Use of "Folk Song"

The prospective social studies teachers were asked questions about which learning areas are suitable for using folk songs in social studies teaching. The table of prospective teachers' opinions and quotations is below.

Table 2. Learning areas suitable for the use of folk songs

Learning areas	f
Culture and heritage (PT1, PT2, PT4, PT7, PT8, PT9, PT10, PT11, PT12, PT13, PT15)	11
People, places, and environments (PT1, PT2, PT5, PT6, PT15, PT16)	6
Active citizenship (PT1, PT2, PT15)	3
*Other (PT3, PT14)	2

* Production, distribution, and consumption; individual and society.

To the table, most of the prospective teachers stated that “culture and heritage (f=11)” is suitable for the use of folk songs in the social studies course, while some prospective teachers expressed that people, places, and environments (f=6) and active citizenship (f=3) are suitable.

Below are examples from the opinions of the prospective teachers:

“We can use it in the culture and heritage unit. The relationship of the practices in celebrations and ceremonies with the elements that make up our culture can be given through case studies.” (PT4).

“The challenges and reasons for migration, the feelings experienced at the end of migration, and how it affects human life are conveyed in folk songs.” (PT6).

“The folk songs can be used in the culture and heritage unit because when we talk about the culture of the societies living in Central Asia, we can give the similarities of today’s culture.” (PT8).

3. Opinions of Prospective Social Studies Teachers about the Contributions of Using Folk Songs to the Social Studies Teaching

The participant teachers were asked questions about the contribution of using folk songs as teaching material to the social studies teaching. The table obtained from the opinions of the prospective teachers and quotations is presented below.

Table 3. Prospective teachers’ opinions on the contribution of using folk songs in teaching

Contributions of folk songs	f
Ensuring permanence (PT3, PT4, PT5, PT6, PT7, PT8, PT10, PT12, PT13, PT14)	9
Drawing students’ attention (PT8, PT9, PT10, PT12, PT13, PT14)	6
Offering a fun learning environment (PT3, PT4, PT9, PT12, PT13, PT14)	6
Having an idea about our national culture (PT2, PT7, PT9, PT10, PT11)	5
Providing students with values (PT1, PT2, PT12, PT15)	4
Increasing comprehension (PT4, PT5, PT6)	3
Transferring traditions and customs to the next generations (PT7, PT15)	2

Offering a different perspective (PT8, PT10)	2
*Other (PT3, PT6, PT8, PT9, PT16)	5

*It enables observing students, strengthens the subject, provides Interaction in the classroom, increases the student's academic success, ensures active participation, and features as a historical document.

According to Table 3, most of the prospective social studies teachers stated that folk songs have an important place in ensuring permanence (f=9). Similarly, teachers reported that the use of folk songs draws students' attention (f=6) and offers a fun learning environment(f=6), as well as giving an idea about Turkish culture (f=5), providing the students with values (f=4). They also added that these songs had benefits such as increasing comprehension (f=3), conveying traditions and customs to the next generations (f=2), and offering a different perspective to students (f=2).

Some of the examples from the excerpts of the prospective teachers are given below:

"We must understand and convey that folk songs are unique to this land and culture. Along with these, it also has an important function in conveying values such as love, enthusiasm, and belonging." (PT2).

"Teachers provide appropriate learning areas with folk songs to enable students to understand the lesson more easily, and folk song helps us to explain many topics in social studies courses." (PT5).

"Interaction is activated in the classroom using folk songs in the social studies course. Folk song attracts the students' interest and increases academic success by bringing a quality that will arouse interest in the students." (PT8).

4. Opinions of the Prospective Teachers about the Values that the Use of "Folk Songs" Conveys to the Students

Prospective social studies teachers were asked questions about what values the use of "folk songs" as teaching material convey to the student. The table and excerpts from the opinions of the prospective teachers are given below.

Table 4. Prospective teachers' opinions on the values conveyed to the student through the use of "folk song"

The values conveyed through folk songs	f
Patriotism (PT1, PT4, PT5, PT6, PT7, PT9, PT10, PT11, PT13, PT14, PT16)	11
Love (PT2, PT3, PT4, PT5, PT6, PT9, PT10, PT11, PT14, PT15, PT16)	11
Respect (PT2, PT5, PT6, PT7, PT9, PT10 PT14, PT15, PT16)	9
Peace (PT2, PT5, PT7, PT10, PT15, PT16)	6
Solidarity (PT3, PT7, PT9, PT13, PT14)	5
Sensitivity	5

(PT4, PT6, PT13, PT14, PT15)	
Benevolence	4
(PT2, PT9, PT10, PT15)	
Diligence	4
(PT4, PT10, PT13, PT14)	
Independence	4
(PT5, PT6, PT10, PT16)	
Honesty	4
(PT5, PT10, PT15, PT16)	
Family unity	4
(PT5, PT6, PT10, PT16)	
Tolerance	3
(PT7, PT9, PT10)	
Equality	2
(PT6, PT14)	
Other*	7
(PT1, PT7, PT3, PT4, PT7, PT8, PT11)	

*Nation, religion, flag, historical awareness, goodness, unity, aesthetics, freedom, longing.

According to Table 4, while most of the prospective social studies teachers mentioned about the convey of the values such as patriotism (f=11) and love (f=11), some prospective teachers also reported that folk songs transfer the values such as showing respect (f=9), peace (f=6), solidarity (f=5), sensitivity (f=5), benevolence (f=4), diligence (f=4), independence (f=4), honesty (f=4), family unity (f=4), tolerance (f=3), and equality (f=2).

Some of the opinions are listed as follows:

“It conveys values such as historical consciousness, unity, patriotism, freedom, solidarity, tolerance, respect, and peace to future generations. For example, through “Hey, 15-Year-Old,” a folk song which tells about the Dardanelles Battle and “5 Minarets in Bitlis,” explaining the dialogue between father and son who went to the First World War, values can be conveyed” (PT 7).

“Since folk songs reflect the values, it is used to transfer the geography features to the students in the best way, and with the folk songs, the consciousness of homeland, nation, religion, language, and history are given.” (PT1).

“As folks tell about the lives of a society, they raise the society as individuals who are more conscious, sensitive, and attach importance to family unity.” (PT16).

5. Opinions of Prospective Social Studies Teachers about the Considerations in Selection of “Folk Songs”

Prospective social studies teachers were asked questions about what should be considered in the selection of “folk songs” as teaching material. The table obtained from the opinions of the prospective teachers and quotations is shown below.

Table 5. Prospective teachers' considerations in the selection of "Folk Songs"

Considerations in the selection of "Folk Songs"	f
Suitability for course PT2, PT4, PT5, PT6, PT8, PT9, PT10, PT12, PT15, PT16	10
Prioritization of values PT1, PT2, PT5, PT7, A15, PT16	6
Suitability for students' level PT12, PT13, PT14, PT15, PT16	5
Comprehensibility PT6, PT9, PT10, PT11	4
Being interesting PT6, PT9, PT10, PT11	4
Belonging to the culture PT2, PT15	2
Availability for the course objectives PT11, PT10	2
*Other PT3, PT7	2

*It should be instructive, convey past events, and raise national awareness.

According to Table 5, most of the prospective social studies teachers expressed that the selected song should be suitable for the course subject (f=10). Besides, prospective teachers suggested that the selection of folk songs should prioritize the values (f=6), be appropriate for the student level (f=5), be understandable and practical (f=4), belong to our own culture (2) and be available for the course objectives (2).

Below are examples from the opinions of the prospective social studies teachers:

“It should be noted whether it tells about our values, whether it conveys past events, and whether it awakens national awareness in students.” (PT7).

“The subject should be related to the Turkish language and complementary to each other and at the same time that the students can understand.” (PT9).

“I make sure that it fully reflects the subject and is suitable for the students' age level. (PT14).

6. The Points that the Prospective Social Studies Teachers Feel Insufficient Regarding the Use of “Folk Songs” in Social Studies Teaching

Prospective social studies teachers were asked questions about whether they have self-efficacy about the use of “folk song.”

Table 6. Opinions about Whether Prospective Social Studies Teachers have self-efficacy about the Use of "Folk Songs"

Self-efficacy Levels	f
High self-efficacy PT1, PT2, PT3, PT6, PT7, PT11, PT13, PT15	8
Partial self-efficacy PT4, PT5, PT8, PT9, PT10, PT14, PT16	7

The table above shows whether the prospective social studies teachers have self-efficacy about using "folk songs." It can be seen in the table that the majority of the answers are similar.

Examples from the opinions of the prospective social studies teachers are as follows:

"I felt partially competent because when choosing folk songs, there may be hesitations about whether it is local. As I chose the folk songs, I had difficulty in its suitability for the subject." (PT4).

"I had a little difficulty in choosing folk songs because I tried to find a folk suitable for my course objective. I paid attention to whether the folk songs I found were known to people. I made sure that the content of the subject and the topic described in Turkey are compatible with each other, and I tried to find folk songs appropriate for the levels of the students." (PT5).

"I felt competent because I chose a folk song that will reinforce the subject, and I think it will be understood when I explain its connection with the subject." (PT6)

Conclusion and Discussion

The results and discussion of the findings are presented in this section.

Conclusions, discussions, and suggestions for the use of "folk songs"

The prospective social studies teachers were asked what they understood about the folk songs to determine their knowledge and awareness of folk songs. They described the folk song as expressing emotions (Kaya, 2019; Yakıcı, 2014), reflecting the culture of society (Cetindag, 2005), being a product of oral literature, having a real counterpart in daily life and being an anonymous literary genre. Folk songs are the oral expression of national culture, traditions, and customs, feelings, and thoughts coming from the past. Through folk songs, feelings and thoughts can be transferred to future generations. The study conducted by Karadeniz (2019) expressed the precious cultural value that folk songs describe the feelings and thoughts of the Turkish people and as a well-established national culture transferred from the past to the present. Tokel (2010) also stated that folk songs are an integral part of Turkish culture and essential in reflecting society's culture. At the same time, it is known that these songs have a real counterpart in life since they give information about the period in which they are in (Sidekli & Coskun, 2014). In this sense, the prospective social studies teachers can be thought to have adequate knowledge about folk songs.

Conclusions, discussions, and suggestions for learning areas suitable for the use of "folk songs"

The prospective social studies teachers were asked which learning areas are more suitable for using folk songs in the social studies course. The prospective teachers found the fields of learning, especially "culture and heritage" and "people, places, and environments," suitable for folk songs. The prospective teachers expressed different opinions regarding the studies on the use of literary works in

social studies. It was stated by the participant prospective teachers that “culture and heritage” and “people, places, and environments” learning areas are suitable for the use of literary products, whereas the prospective teachers expressed that they can be used in the fields of “culture and heritage” and “global connections” (Beldag & Aktas, 2016). From this point of view, it can be concluded that the use of folk songs and other literary works in social studies education is limited to certain learning areas and that the learning areas deemed suitable for the use of literary works are common. However, the field of culture and heritage learning has particular importance in transferring our cultural values to future generations (Boluçek, 2008). According to the responses received from prospective teachers, it is seen that the field of culture and heritage learning is more effective in the use of folk songs.

Conclusions, discussions, and suggestions regarding the contributions of “folk songs” to the social studies teaching

The prospective social studies teachers found the use of folk song-supported teaching activities in social studies courses to ensure permanence, drawing students' attention, and fun. They also emphasized that it has benefits such as giving an idea about national culture, giving values to students, increasing comprehension, ensuring that traditions and customs are conveyed from generation to generation, and giving students different perspectives.

Folk songs can be used as a source in social studies courses because they contain information about the period in which they were created (Sidekli & Coskun, 2014). Besides, they help students keep their interest in the lesson alive by stimulating their imagination. Harris (2004) also highlighted that using songs as teaching material could arouse students' interest in the lesson. Sidekli & Coskun (2014) stated that the creation of folk songs by different societies would be useful in gaining different perspectives in social studies courses and using different approaches in teaching social studies subjects. It is suggested that the students' high-level and critical thinking skills improve through music-supported activities (Boluçek, 2008; Moore, 2007; Sánchez, 2007; White & McCormack, 2006) and that the courses are fun with music-supported activities (Sidekli & Coskun, 2014). Accordingly, students can listen to folk songs first, then make comments and express what the folk songs imply with their sentences, and it also allows the students to filter their knowledge and become critical thinkers (Boluçek, 2008). Thus, the individual's cultural awareness and the ability to express this awareness can be transferred to students through folk songs.

The studies in the literature describe the positive effects of using the literary product such as motivation and socialization of students, providing a fun learning environment, ensuring course achievements and permanency of the learning materials, enriching education, providing attention and participation (Beldag & Aktas, 2016; Yesilbursa & Sabanci, 2015). Using folk songs helps students gain an empathic thinking habit and motivation for the lesson. Hence, using the folk song not only enriches the teaching but also informs the student about the vital components of cultural heritage

(Boluçek, 2008). Thus, it is advantageous in many ways to use folk songs-supported educational activities in teaching the social studies course.

Conclusions, discussions, and suggestions regarding the values that the use of “folk songs” will convey to the students

The values of “justice, family unity, independence, peace, being scientific, diligence, solidarity, sensitivity, honesty, aesthetics, equality, freedom, respect, love, responsibility, prudence, patriotism, benevolence” began to be taught in the 2005 social studies curriculum (MoNE, 2005). Therefore, it can be one of the most effective ways to use literary works in transferring the values in education. The prospective participant teachers suggested that patriotism, love, respect, peace, solidarity, sensitivity, benevolence, diligence, independence, honesty, family unity, tolerance, and equality could be taught through the folk songs in social studies education. Kolac & Ozer (2018) indicated that the values of respect, patriotism, and love could be conveyed with literary works in social studies teaching, as well as sensitivity, tolerance, benevolence, responsibility, honesty, diligence, peace, independence, family unity, and fairness can be conveyed through literary products. While Sidekli & Coskun (2014) claimed that the values are created in the environment where we live, and folk songs reflect our lives and culture with music, Yesilbursa & Sabancı (2015) pointed out the integration of the structure in the social studies curriculum. They underlined that it is necessary to benefit from literary works in teaching social studies. Cetindag (2005) emphasized that folk songs include the most valuable values that distinguish us from others and reflect all the material and moral values.

Conclusions, discussions, and suggestions regarding the issues to be considered in the selection of "folk songs."

The prospective social studies teachers stated that when choosing “folk songs” as teaching material in the social studies course, they should be suitable for the subject. They also suggested that values should be prioritized in the selection of folk songs, be appropriate for the students' level, be understandable and practical, belong to our own culture, and be suitable for course objectives. It was argued that the literary works used in teaching should have the qualities such as being suitable for students' level, drawing attention, being fun, informative and suitable for the course objective and the national spiritual values, and promoting student participation (Beldag & Aktas, 2016; Boluçek, 2008; Yesilbursa & Sabancı, 2015). In social studies courses, instead of memorizing or teaching irrelevant information from daily life, a productive learning environment can be created for students using epics, fairy tales, riddles, proverbs, folk tales, and folk songs (Boluçek, 2008). Additionally, using such literary works can help students connect with historical events.

Moreover, folk songs provide students with the opportunity to obtain long experiences and contribute to thinking development (Ozturk, Coskun Keskin & Otluglu, 2014). With folk songs in

social studies teaching, folk culture's foundations can be passed on to new generations. After creating an appropriate classroom environment for literary works, the learning-related, open, understandable, engaging, and enriched learning environment can help students ensure the clarity and permanence of the topics covered.

Conclusions, discussions, and suggestions for the prospective teachers' points feel insufficient regarding the use of "folk song."

Half of the prospective teachers suggested that they had self-efficacy for the use of folk songs in social studies teaching because they had an interest in folk songs. Others considered themselves partially qualified because they had difficulty in finding folk songs suitable for the course objectives. In literature, the studies on the use of literary works in social studies education, prospective teachers admitted that they did not have self-efficacy in choosing and using literary works that are relevant and suitable for the student level (Beldag & Aktas, 2016; Yesilbursa & Sabancı, 2015). That can be resolved by having the prospective teachers conduct social studies teaching applications with oral-written literary works. The prospective social studies teachers should be supported in realizing a teaching environment and activities enriched with literary works.

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Examination of the Professional Belief Level of the Physical Education Teacher Candidates and Factors Affecting Their Belief Level: A Mixed-Method Research

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Abstract

This study aimed to determine the professional belief levels of the physical education teacher candidates and the factors affecting their belief levels. Exploratory sequential design, one of the mixed research methods, was used to examine the candidates of the physical education teachers. The quantitative sample of the study consisted of 278 (n=126 female, n=152 male) candidates teachers attending the 1st, 2nd, 3rd and 4th-grade level at the Faculty of Sport Sciences. The qualitative research sample of the study consisted of 12 physical education teacher candidates who participated in two different focus group interviews. In the quantitative part of the study, while the independent sample t-test was used in the analysis of the gender variable, One-way ANOVA test was used to determine the difference between the grade levels. In the qualitative part of the study, content analysis was used. While there was no significant difference in the “sense of calling” and the “value of physical education” according to gender, there was a statistical difference according to the grade level of the candidate teachers. In the qualitative part of the study, as a result of the focus group interviews, two themes and twelve categories were determined as the reasons that affect the belief levels of the candidate teachers of physical education positively and the reasons that affect them negatively. It was derived from the study that candidate teachers state that their motivation, attitude, and beliefs towards the teaching profession after starting their departments gradually decreased and started to evolve negatively after starting the department. Teacher candidates state the reasons of their negative opinion as “disappointment caused by the department”, “insufficient salary”, “counting on the spot (make no progress)”, “negative physical education teacher perception in the society”, “working conditions”, “insufficient field education” and “difficulty in appointment to the job”.

Keywords: Physical Education Teachers, Teaching, Profession Belief, Candidate Teachers.

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Introduction

From the determination of the department preference of the teacher, which is one of the most valuable components of the education system, to the vocational education process, from the candidate teacher to the profession, factors such as perspective, attitude, motivation, expectations and belief in the profession will be determined in terms of his/her success and continuity in the profession. Teaching is a profession that requires emotional behaviour other than knowledge, ability, and experience (Pehlivan, 2010), as well as knowledge in training qualified students, the attitude of the teacher towards the profession and the Value of the profession are also necessary (Kılınçer & Afacan, 2019). As a result of the researches conducted to reveal the relationship between the teacher beliefs and professional beliefs of both candidate teachers and teachers in the last thirty years, very important findings have been obtained in this regard (Shinde & Karekatti, 2012). In particular, reasons such as a decrease in teacher quality and a decline in profession preference have made researches increasingly focused on candidate teachers' perceptions, motivations, passions, and career development (Mangoil et al., 2017). Organization for Economic Cooperation and Development (OECD), which Turkey is a member, the number of qualified teachers according to the 2009 report has become a common problem for all OECD countries (Moses, et al., 2017; Fokkens-Bruinsma & Canrinus, 2012). Similarly, Pop and Turner (2009) pointed out that the decrease in the number of teachers has become a major problem faced by both the United States and many countries in the world. The main reason behind this problem is explained as the discrepancy between the motivation of the person to become a teacher and the tasks that must be performed after the teacher or the facts faced by the teacher (Fokkens-Bruinsma & Canrinus, 2012).

There must be some factors that play an important role in motivating the individual to his profession and activate the individual to ensure satisfaction in his profession (Ayık & Taş, 2014). The researchers emphasized that motivation is a force that guides the individual towards certain goals and enables them to act in line with these goals, the effective use of this force is effective in achieving the goals of the individual, and candidate teachers should be motivated to work in the future for education. Altinkurt et al., (2014) stated that high motivation level provides high job performance and candidate teachers' motivations about the teaching profession are very important in terms of reflecting their feelings, thoughts, and behaviours about the profession. In their research, Fokkens-Bruinsma and Canrinus (2012) concluded that the motivation of individuals to be teachers mostly affects their professional commitment levels. Researchers argue that the main motivation source for being a teacher is "perception of one's teaching ability". In the researches about choosing the teaching profession, it was determined that the candidate teachers see the reasons for choosing the teaching profession as a career as "intrinsic motivation", "extrinsic motivation" and "altruistic" [altruistic: the view that makes life and moral principle working for the well-being of others] (Pop & Turner, 2009).

The researches also show that, motivations such as "desire to work with children", "inner value (the feeling of satisfaction or pleasure that a student feels when he/she understands what is told)", "shaping the future or influencing students", "social contribution" and "perceived teaching ability" were reasons for choosing teaching as a career (König & Rothland, 2012; Watt & Richardson, 2012). Bergmark et al., (2018) stated that salary, status and working conditions are sources of external motivation, passion for teaching and desire, and subject knowledge and expertise are sources of intrinsic motivation. It is stated by the researchers that there is a motivation in the subject of "supporting the development of children" and "making a difference in society" with the concept of altruistic (altruism), which sees "sacrificing for the well-being of others as the principle of life and morality". Pop and Turner (2009) also stated that the candidate teachers having external motivation tend to focus on external aspects that are not inherent in the profession, such as taking long vacations, requesting a certain level of wages, or demanding other benefits related to their profession. Pop and Turner (2009) emphasized that many types of research aimed at determining teacher candidates' views about teaching are primarily focused on individuals who are dedicated to the teaching profession, while Kyriacou and Coulthard (2000) are investigating the reasons why individuals continue their teaching career. Kyriacou and Coulthard (2000) divided the students attending the teacher education program into three different groups as "anti-teaching group", "undecided group" and "pro-teaching group". The results of the research revealed that all three groups were strongly motivated by their professions for reasons such as "the nature of the profession (a job I will find fun)" and "the environment (a pleasant working environment)". Besides, it has been observed that those who do not intend to teach (anti-teaching) emphasize relatively 'good chance of promotion' and "high earning during career" and those who are considering teaching emphasize "a job I can contribute to society" and "a job I can care about for others". In a research conducted by Kılınç et al., (2012), including preschool, primary and secondary school candidate teachers in Turkey, while "altruistic (altruistic: social benefit)" was the first choice in the profession, a safe job desire, intrinsic value and perceived teaching skills followed. Polat (2014) stated that the reason for preference of candidate teachers is the economic factors expressed in the form of "job security" and "job guarantee", as well as working conditions such as being "comfortable" and easy in the profession are also important in the choice.

Another factor for the teaching profession to be efficient and sustainable is the attitude of the candidate teachers towards their profession before starting their field education. Baykara Pehlivan (2013) stated that attitudes are learned, the processes of connotation, reinforcement, and imitation of learning are determined, not only in children, but also the same process applies to peers, teachers, or other persons other than parents. Karadağ (2012) stated that teachers require a positive attitude towards the profession and having affective domain competencies before the service to fulfil their responsibilities in terms of educating individuals in line with the requirements of the age and increasing the quality of the education system. Özkan (2012) stated that teachers' attitudes towards

their professions are related to their love of their professions, being attached to their professions, aware of the fact that their profession is socially necessary and important, and believing that they must constantly improve themselves. The researcher emphasized that positive or negative attitudes are very effective in guiding the professional behaviour of candidate teachers, therefore, the learning lives of students should be arranged in a way that will create positive attitudes towards the teaching profession.

The perception, motivation, and positive or negative attitude of the candidate teachers towards their profession are undoubtedly the elements that will be directly affected by the education environment they are in. At this point, the academic, physical and social competence and quality of the institution where the candidate teacher receives his vocational education directly affect the perception, emotion, thought, and attitude regarding the profession of the candidate teacher. Yıldırım and Kalman (2017) emphasized that, among other variables, teacher education is effective in obtaining qualified student and learning outcomes. Uğraş and Güllü (2019) similarly stated that the quality of the institution that educates teachers is the primary factor that determines the quality of the teacher, the quality of these institutions, the content of the program carried out, the suitability of time, the facilities and equipment, and the quality of the instructors in these institutions directly affect the quality of the teachers who graduate from these institutions. Darling et al., (2005) also emphasized that the relationship between teacher education and teacher effectiveness has been a subject that has been frequently discussed in both research and political circles in recent years, teacher effectiveness is very strongly associated with education for preparation for teaching. The most important role that universities will undertake in the process of training teachers is to develop their ability to go beyond one's perspective, to replace themselves with learners, and to understand the meaning of this experience in terms of learning (Darling-Hammond, 2000). Ozcan (2020) pointed out that while designing the teacher education programs, many issues such as courses, educational process, materials and programs are considered, but among these, "teacher candidates' attitudes towards the profession" and "professional preparation" are the two most important issues. However, the results obtained from research on teacher education, teacher training programs, and teachers who have just started their profession have shown that teacher education programs are not sufficient to gain some competencies (Yıldırım & Kalman, 2017). Aktağ and Walter (2005) emphasized the importance of teacher training programs and stated that educators within the Turkish education system are aware that trained, self-believing and confident, high-motivational teachers are needed for Turkey to take place among the developed countries.

The professional beliefs of the teacher candidates which will ensure being permanent or not in the profession are the most important factors as well as the attitude developed against the profession, the perception developed towards the teaching profession, the factors that motivate the person. Undoubtedly, professional belief is a concept directly related to the institution that provides

professional perception, motivation, attitude, and vocational education. However, professional belief is the main determining factor whether the candidate teacher will start or will continue later the profession, or not. Erbas (2013) emphasized that knowledge and belief are the main factors affecting people's attitudes and behaviours, and it is not possible to say the same situation for belief, which is a subjective concept that can vary from person to person. Teachers' beliefs also affect their perceptions about education, teaching methods and students' learning outcomes. Also, candidate teachers' beliefs about physical education and job requirements affect their decision to become physical education teachers or not. (Xiang et al., 2002). Aktağ and Walter (2005) emphasized that teachers' beliefs in their professional competencies are one of the most important factors affecting their success in the profession. The researchers argued that the early gaining of confidence and competence in candidate teachers will increase the success of the candidate teachers both during their teaching lives and after they become teachers. Uğraş and Dindar (2019) argued that the belief, which is the first step of the beginning of the profession, should be settled in the choice of teacher, in the process of education and after, and that there will be more professional satisfaction in teachers with high belief and motivation. Bergmark et al., (2018) stated that candidate teachers' beliefs in the profession are very important since the beginning of the process and that naming themselves as teachers at the beginning of the education process is an important step for the teaching profession. The candidate teacher's qualification as a teacher and his belief in the profession will be a driving force in overcoming the problems he will encounter in his career (Bergmark et al., 2018). The belief in the teaching profession affects the permanence in the profession in addition to the career choice (Dündar, 2014). Tümkaya and Uştu (2016) found that those who started their teaching profession unintentionally experienced more burnout compared to those who started voluntarily and that teachers who started voluntarily were more dependent on the profession. According to Watt et al., (2014), candidate teachers can be evaluated in three different groups in choosing the teaching profession at the beginning of career planning. While the first group is a candidate for teaching as a career firmly and until the end, the group that is enthusiastic about teaching but desires to move on to a different career after a certain period constitutes the second group, and the group that is lowly committed to teaching as a career is the third group. Therefore, it is possible to say that the belief of the candidate teacher in the profession may affect both education and professional life positively or negatively.

In the review of the literature, in Turkey, it is seen that there are different researches about “the wishes of physical education teacher candidates to start the profession and their professional attitudes” (Abbasoğlu & Öncü, 2013; Pehlivan, 2010; Ünlü, 2013; Yanık & Çamlıyer, 2013; Altinkurt et al., 2014; Oğuz, 2013). It is also seen that the researches generally were focusing on the subject of “self-perception, self-esteem, self-efficacy and belief” (Yılmaz et al., 2017; Karabulut et al., 2019; Arslan & Çolakoğlu, 2019; Kahraman & Çelik, 2019). The study named "Adaptation of the Scale of Physical Education Teaching Professional Belief to Turkish Culture" conducted by Uğraş and Dindar

(2019) draws attention in terms of bringing a different perspective to this issue. It is thought that supporting this quantitative research with a research that will be carried out with a mixed method will make important contributions to the literature. For that reason, in this study, it was aimed to determine the professional belief levels of the physical education teacher candidates and the factors affecting their belief levels.

Method

Research Design

Exploratory sequential design, one of the mixed research methods, was used to examine the candidates of the physical education teachers who study at the faculty of sports sciences of Marmara region universities and the level of belief in the profession and the factors affecting it. The exploratory sequential design is a method that the researcher starts with the quantitative research department and then searches for special results through qualitative research (Creswell & Clark, 2018). In this design, it is aimed to explain the relations and trends in the quantitative data with the qualitative stage.

Research Group

Quantitative Research Group

The quantitative sample of the study consisted of 278 (n=126 female, n=152 male) candidates teachers attending the 1st, 2nd, 3rd and 4th-grade level at the Faculty of Sport Sciences.

Table 1. Distribution of the Candidate Teachers According to their Gender and Grade Level

Candidate Teachers' Qualifications		n	%
Gender	Male	152	54.7
	Female	126	45.3
	Total	278	100.0
Grade Level	1st Grade	62	22,3
	2nd Grade	106	38.1
	3rd Grade	53	19.1
	4th Grade	57	20.5
	Total	278	100.0

Table 1 shows the distribution of the candidate teachers according to their gender and grade level.

Qualitative Research Group

The qualitative research sample of the study consisted of candidates for physical education teachers studying in the 4th grade, whose professional belief levels decreased compared to the quantitative research results. Snowball sampling method, which is one of the purposeful sampling methods, was used for sample selection. In the snowball sampling, it is based on the questions "Who can I get the best information about?" (Patton, 2002). For this purpose, 6 physical education candidate teachers who have high teaching profession beliefs and who do not think of any other career have

formed the 1st Focus group, while 6 physical education teachers who did not think of teaching physical education when they graduated formed the 2nd Focus group. While forming focus groups, it was attempted to reach candidate teachers with high and low professional belief levels.

Data Collection Tool and Data Collection Process

Quantitative Data Collection Tool

In the quantitative part of the study, the Turkish version of the "Belief Scale for Physical Education Teaching", which was developed by Fan et al. (2018) and adapted by Uğraş and Dindar (2019) into the Turkish was used. The scale consists of 2 dimensions and 11 items, namely "Sense of calling" and "Value of Physical Education". Confirmatory factor analysis (CFA) was performed for the construct validity of the scale. According to the CFA results, it was determined that the factor loads of the "Sense of calling" dimension ranged between 0.59 and 0.94, and the "Value of Physical Education" ranged between 0.57 and 0.92. The scale has acceptable values (Hooper, Coughlan & Mullen, 2008; Kline, 2016) values ($\chi^2 / sd = 0.903$, GFI = 0.903, CFI = 0.950, NFI = 0.937, IFI = 0.950, RMSEA = 0.080) has been identified. It was determined that the Cronbach's alpha value of the scale was 0.94 in the "Sense of calling" dimension and 0.91 in the "Value of Physical Education" dimension.

Qualitative Data Collection Tool

A semi-structured interview form was used to determine the reasons that affect the belief levels of the candidate teachers of physical education positively or negatively. A semi-structured interview form was used due to the in-depth clarification of candidate teachers' thoughts and their flexibility (Merriam, 2013). Two separate focus group interviews were conducted to collect the data. Focus group interviews were preferred in terms of providing a broad perspective on the subject being investigated and referring them to new thoughts (Cameron, 2005).

Data Analysis

Quantitative Data Analysis

Skewness and kurtosis values were examined to understand whether the physical education teacher professional belief scale shows the normal distribution. As can be seen in Table 2, parametric tests were used since the skewness and kurtosis value was between +2 and -2 values (George & Mallery, 2010). DFA analysis AMOS 23 program was used to test the construct validity of the scale. While the independent sample t-test was used in the analysis of the gender variable, One-way ANOVA test was used to determine the difference between the grade levels. The significance value ($p \leq .05$) was accepted. Scheffe test was used in posthoc tests to understand which groups the difference is.

Qualitative Data Analysis

Focus group interviews with candidate teachers were recorded in the voice recorder to avoid data loss, and then transferred to the written medium. Content analysis was conducted to reach concepts and relationships that could explain the factors that affect the beliefs of the physical education and sports teacher candidates on the profession positively or negatively (Yıldırım & Şimşek, 2016). Thematic analysis was carried out for the reader to understand better. In thematic analysis, the researcher's familiarity with the data, creating the first codes, searching for themes, reviewing themes, identifying and naming themes, and finally preparing the report are followed (Braun & Clarke, 2019). For the reliability of the research, a suitable sample was selected for the study, and some expressions of the participants were given in the themes with direct quotations.

Results

Quantitative Results of the Research

In this part of the research, quantitative test results of the research were presented in Table 2, Table 3 and Table 4.

Table 2. Arithmetic Mean, Standard Deviation, Skewness and Kurtosis Values of Teacher Candidates' Scale Sub-dimensions

Sub Dimensions	N	\bar{X}	SD	Skewness	Kurtosis
Sense of calling	278	5.51	1.58	-1.23	.64
Value of Physical Education	278	6.28	1.26	-1.07	1.08

When Table 2 was examined, it was determined that there is no statistically difference in the “Sense of calling” ($t(276) = .563, p = .574$) and the value given to physical education ($t(276) = .588, p = .557$).

Table 3. Independent Sample T-Test Results According to Gender Variable

Sub Dimensions	Gender	N	\bar{X}	SS	SD	T	P
Sense of calling	Male	152	5.46	1.63	276	.56	.57
	Female	126	5.57	1.51			
Value of Physical Education	Male	152	6.32	1.10	276	.58	.55
	Female	126	6.23	1.44			

When Table 3 was examined, it was determined that there was no any statistical difference between “Sense of calling” [$t(164) = 0.563, p = .574$] and “Value of Physical Education” [$t(164) = 0.588, p = 0.557$] according to gender variable.

Table 4. One Way Anova Results by Grade Variable

Sub Dimensions	Grade Level	N	X	SD	Anova		Scheffe
					F	P	
Sense of calling	1	62	5.64	1.57	2.29	0.03	3 and 4
	2	106	5.36	1.67			
	3	53	5.99	1.25			
	4	57	5.18	1.60			
Value of Physical Education	1	62	5.51	1.58	3.15	0.02	3 and 4
	2	106	6.29	1.29			
	3	53	6.34	1.35			
	3	57	6.59	.76			

When Table 4 was analyzed, it was determined that there is a statistical difference in the “Sense of calling” and the “Value of Physical Education” between candidate teachers who attend 3rd grade and candidate teachers attending 4th grade.

Qualitative Results of the Research

As a result of the focus group interviews, two themes were determined as the reasons that affect the belief levels of the candidate teachers of physical education positively and the reasons that affect them negatively. Reasons that positively affect professional belief theme; It consists of "My Dream Job", "Loving Working with Children", "Being Beneficial for the Society", "Being Intertwined with Sports", and "The Effect of the Physical Education Teacher". The theme of the factors that negatively affect professional belief formed as “Disappointment Caused by the Department”, “Insufficient Salary”, “counting on the spot (make no progress)”, “Negative Physical Education Teacher Perception in the Society”, “Working Conditions”, “Insufficient Field Education” and “Difficulty in Appointment to the Job” into these categories.

Theme 1: Reasons Affecting the Profession Belief Positively

My Dream Job. In the 1st Focus Group meeting comprised of a total of 6 Physical Education Teacher candidates who have high teaching beliefs and do not think of any other careers, the most important factor that increases the beliefs of the Candidates of Physical Education Teachers on their professions was "My Dream Job" category. It is understood that the candidate teachers who stated this view see Physical Education Teaching as a profession to “prove themselves or perform”. The candidate teachers in this group stated that “Physical Education Teaching has more flexible, more fun and more comfortable working conditions than other branch teachers”, “the workload is lighter” and “Although the salary is the same, the expectation from them is lower than the other branch teachers. Besides, the participants of this group stated that “Physical Education Teachers see their salaries as satisfactory” and “the feeling of not being successful in other branch teachers or other professional groups” positively affect their thoughts on this profession. Nalan and Meltem, two participants whose

belief in the profession is observed very high, answered the question that “What would your attitude be if you received an offer from another profession with a higher salary after you started the profession?” as *“I will not leave my profession in such a situation”, “this is my ideal job” and “I think I will be happy in this profession.”*

Loving Working with Children. It is seen that another factor that increases the beliefs of the Physical Education Teacher candidates participating in the first focus group meeting is “to love working with children”. The participants of this group stated that they “love to work with children”, and it is seen that “being a beneficial person for the society” and “the pleasure of teaching something to the children” are the reasons that reinforce their belief in the profession of Physical Education Teaching. For example, Nalan, one of the focus group participants, stated that *“Child love and sympathy are very important for this profession. I love children too. Thinking that I will contribute to the physical and mental development of children motivates me and gives me happiness. I have worked with children of different age groups for many years. I am very excited to be able to work with them while teaching.”*

Being Beneficial for the Society. It is seen that a common opinion that increases the beliefs of teacher candidates on the profession is due to the idea of “being a beneficial individual and benefiting the society”. The candidate teachers stated that the education they received was an opportunity for them to reveal talented athletes and believed that they would successfully fulfil their responsibilities towards the society in their profession. One of the participants of this group, Elif stated that *“I want to be a beneficial individual to the society. I intend to serve this society by applying the education I received at school in the field. I want to fulfil my responsibility towards this country and society that raised me”.*

Being Intertwined with Sports. In the focus group meeting with this group, it is seen that another reason that positively affects the belief in the Physical Education Teaching profession is due to the candidate teachers' thought of being "intertwined with sports". It is observed that all of the candidate teachers' being an amateur or professional level athletes in individual or team sports before starting their departments, as well as their "competing in school teams in primary and secondary education" have a positive effect on their belief in this profession. Also, it is seen that candidate teachers stated that Physical Education Teaching is more attractive for them as a “profession intertwined with sports”. For example, Zehra stated that *“I was in the school team in high school and my physical education teacher realized that I was talented and encouraged this department.”*

The Effect of the Physical Education Teacher. Participants of the first focus group meeting stated that the effect of "the Physical Education Teachers" during their secondary or high school education as a factor that positively affects their belief in the profession. The candidate teachers stated the positive effects of Physical Education Teachers, especially during their secondary or high school

education, on the awareness of this profession, knowing and loving the profession, and stated that "Physical Education Teachers play an encouraging role in this profession". For example, Nalan declared that: *"My Physical Education teacher has a huge impact on the entrance to the department I am currently studying. When I was in primary and high school, we were friends with my Physical Education teachers. Our communication with them was very good compared to other teachers. They were very friendly towards us. I asked, "What is the School of Physical Education and Sports?", "How to enter to these schools?" I never knew. It is a huge factor. They always led me."*

Theme 2: Reasons That Affect Belief in Profession Negatively

Disappointment Caused by the Department. Participants of the 2nd Focus Group meeting consisting of a total of 6 Physical Education Teacher candidates who have low teaching professional beliefs and who do not intend to be a Physical Education Teacher when they graduate. They stated that the most important reason that negatively affects their beliefs in the Physical Education Teaching profession is "disappointment about the education they prefer" and "failure of the school to meet their expectations". Participants stated that especially in the first year they started school, both the physical and technical facilities of the school environment and the quality of the instructors were far from the expectations, this situation caused a disappointment and this situation increased negatively in the following years. Erdem, one of the participants of the second focus group meeting, stated that: *"In my second year, I watched how a physical education teacher works in a school setting. The landscape I saw caused me to change my mind. When I compared the effort spent with his salary, I thought that this profession would not be done. They also have incredible pressure on them. I think the current system limits physical education teachers. So, I turned to another profession in the private sector."* Another participant, Halil said, *"My expectations from my department were very high. But then I did not feel myself belong to here. I saw that the content of the courses given in the department is not very suitable for the field, and the teachers do not give enough importance to sports and our field. I cannot say that application training is of very high quality."* Another participant who graduated from Sports High School, Berkay said, *"We could not exceed the high school level. We were having the same lessons in high school. We did not have a very different education. I also think that academic staff is inadequate."* All of the participants were asked, "If you get an attractive offer from another profession with a higher salary after starting the profession, what would your attitude be? They answered the question *"We accept it immediately"*.

Insufficient Salary. The participants of the second focus group meeting stated that another factor that negatively affects belief in their profession is "insufficient salary". Participants stated that they could find jobs with higher salaries, where they could sustain their lives, so they did not plan to teach Physical Education. Participants stressed that they could move towards more attractive professions in terms of salary and career in a sport or a completely different sector other than teaching.

For example, Zeynep declared: *"I have to maintain my life and if I cannot be appointed in my first year, I am thinking of being the second alternative as a police officer."*

Counting on the spot. The candidate teachers who did not intend to be a Physical Education Teacher stated that their level of belief in the profession decreased due to reasons such as "counting on the spot" or "not having a chance to rise as a status". Erdem, one of the participants of the second focus group, stated that *"I would have a lack of professional satisfaction due to problems related to career planning, this situation would cause low motivation and for that reason, my belief in the profession decrease."*

Negative Physical Education Teacher Perception in the Society. Physical Education Teacher candidates have expressed the perception of "negative physical education teacher in society" as another factor in reducing their belief in their profession. Participants stated that the negative perception in society about the Physical Education Course and Physical Education Teacher negatively affects them and reduces their motivation. Teacher candidates, they are not adequately respected in society, their work is seen as worthless, this stereotyped negative judgment cannot be easily improved, they do not expect to be fixed easily, they said. It has been stated that school administrations and other branch teachers do not have enough respect for physical education teaching. They also pointed to the negative effects of violence against teachers, which occur from time to time in society. Participants argued that all this negative atmosphere is important factors that cool themselves off the profession. Yasemin, one of the participants of this group, concern that *"as I saw some of the violence in the community towards teachers, this situation began to scare me, and I began to shy away from this environment"*. Zeynep, stated that *"although we are valued sufficiently by the students, the perspective of families and the community is not very positive and respectable to our profession."*

Working Conditions. The participants of the second focus group interview see physical education teachers' "working conditions" as an important factor that negatively affect their profession beliefs. Teacher candidates, after starting the profession, the negative socio-economic and geographical conditions of the region to be appointed, they feared themselves. Berkay, one of the participants of the second focus group, expressed that *"there might be a lack of facilities and equipment in the schools where I will work, this negative situation reduces my interest and motivation for the profession. I don't want to work in this environment."*

Insufficient Field Education. The candidate teachers stated "insufficient field education (formation education)" as another factor that negatively affects their beliefs in the profession. Candidate teachers emphasized that the training education they received was insufficient in preparing themselves for the profession. They stated that both the Physical Education Teachers in the application schools and the advisor instructors at their faculty, where they carry out the application course, did not contribute to them professionally. They stated that these negativities are one of the most important

factors that negatively affect their beliefs towards the profession. Erdem, one of the participants of this group, stated that: "*the content of the formation of education is empty and very inadequate. Formation education has turned into a trade. You must pay the money for this education!*"

Difficulty in Appointment to the Profession. In addition to this, the fact that the problem of not being appointed to the profession of graduate teachers, which is a general problem in our country, is also valid for Physical Education Teaching, is a leading factor that decreases belief in the profession. All the teacher candidates stated that "the accumulation in the number of candidate teachers in the profession" and "the fact that they could not be appointed to the profession within a few years after graduation" negatively affect them. Zeynep one of the participants of the second focus group stated that "*If I fail to get rid of this negative situation after trying to be appointed for one or two years, I can give up this profession and will turn to another profession.*"

Discussion, Conclusion and Recommendations

In the current research, firstly, quantitative research findings were presented, and then in-depth content analysis was attempted with qualitative research findings. From this point of view, in this part of the research, it was tried to present whether the quantitative and qualitative research findings overlap with the similar researches in the literature and the extent to which the quantitative research findings match the qualitative research findings.

According to the quantitative research findings, there was no significant difference in the teaching profession belief levels of the teacher candidates according to the gender variable. These findings coincide with the research conducted by Erbas (2013). This finding is supported by the qualitative findings of the current research. For the qualitative part of the research, it was found that female and male teacher candidates gave common answers and did not think differently about the factors affecting their professional beliefs positively or negatively in both focus group interviews with teacher candidates with high teaching profession beliefs and low teaching profession beliefs.

The quantitative findings of the study show that there is a statistically significant difference between the candidate teachers who continue to the 3rd grade and the candidate teachers who continue to the 4th grade. This finding also coincides with the qualitative findings of the research. Both female and male participants of the group, whose teaching profession has low belief level and who do not intend to do the teaching profession, expressed their views in the same way. Candidate teachers in this group stated that after starting the departments, their motivation, attitude, and beliefs towards the teaching profession gradually decreased and started to evolve negatively. Candidate teachers who expressed their opinions in this way especially highlighted the reasons such as "disappointment caused by the department" and "insufficient field education they received during their education life" and stated that these factors negatively affect the belief in their profession. Candidate teachers stated that

this situation became more negative especially when they started the 4th grade and after their teaching formation and field education.

As a result of the focus group meeting with teacher candidates with high teaching profession beliefs, the themes of “my dream job”, “love working with children”, “being beneficial for the society”, “being intertwined with sports”, and “effect of physical education teacher” has emerged as the themes that positively affect belief”. It is seen that these qualitative findings of the current researcher are supported by other researches in the literature. In their study, Fokkens-Bruinsma and Canrinus (2012) concluded that factors such as “working with children” and “benefiting the society” are factors that increase teachers' emotional commitment to the profession, Zach et al. (2020) stated that both male and female teacher candidates will continue their jobs for idealistic reasons such as "loving children", "positive relationships with children", "the opportunity to instil value for children" and "their love for the profession". Similarly, Manuel and Hughes (2006) emphasized that for candidate teachers “working with them to make a difference in the lives of young people”, “establishing a meaningful connection with their fields of study” and “gaining personal satisfaction and meaning” are the most important reasons that direct them to their profession. Besides, in the research carried out by İman (2014), a significant relationship was found between "loving children", "enjoying working with them" and "motivation of candidate teachers" and "preferring teaching profession". The reasons for candidate teachers to choose their profession also overlap with the different research findings in the literature. Schutz et al. (2001) listed the factors in the choice of a teaching career as "family effects", "teacher effects", "peer effects" and "teaching experience", while Pop and Turner (2009) determined the reason for the preference of physical education candidate teachers as altruistic (altruism). According to the findings of the current research and other studies in the literature, elements such as “the desire to work with children and teach them” and “the belief that society can be improved through education” are the main motivation sources for candidate teachers both in choosing the profession and increasing their belief in their profession. These findings show that candidate teachers tend to start their teaching professions both fondly and willingly, and they want to make an individual and social contribution to their fields. This situation is very important for obtaining expected learning outcomes from the education group where the teacher candidate will teach. On the other hand, candidate teachers are extremely valuable in terms of performing their performance with the same belief and determination after starting teaching.

As a result of the focus group meeting with candidate teachers who have low teaching profession belief, “disappointment created by the department”, “insufficient salary”, “counting on the spot”, “negative physical education teacher perception”, “working conditions”, “insufficient field education” and themes such as “difficulty in being appointed to the profession” came to the fore as reasons that negatively affect professional belief. Similarly, Zach et al. (2020) stated that the main

reasons for candidate teachers who decided to leave the profession were “insufficient or low wages”, “not being provided with enough hours” or “finding a job with better wages” and “not respecting the profession sufficiently by school administrations, families and children”. The researchers also emphasized that candidate teachers do not want to continue their profession due to reasons such as the heavy working conditions (excessive working hours), technical impossibilities, and insufficiencies for physical education (school building and lack of existing technical infrastructure). The research conducted by Polat (2014) concluded that “candidate teachers found that the social status and respectability of the teaching profession is low”. Cemaloğlu and Şahin (2007) stated that the reasons such as “poor working conditions” and “lowered respectability of the teaching profession in society” lead to professional burnout of teachers.

In the literature, when the findings of qualitative research conducted in different cultures are examined, it is seen that candidate teacher who has high and low levels of professional belief meet at common points both positively and negatively. Regardless of the countries where the research is carried out, it is seen that the main reason that increases the level of interest, motivation, and belief of all teacher candidates to their professions is an "idealist approach". As in other occupational groups, there are many different motivations such as the desire of people to enter the working life and show their talents, the desire to earn a salary from this field, and the ambition to do their job with almost perfect sensitivity and neatness. These motivations are becoming more special for the teaching profession, which touches people's lives and is a role model for them, and it is an expected and usual situation for teacher candidates with high professional beliefs to approach their profession in this way. However, the main important finding obtained from current and similar researches is the factors that enable these negative feelings and thoughts to appear in candidate teachers with a low level of belief in the teaching profession. When the findings obtained from the focus group interviews are analysed, it will be seen that the negative factors such as lack of interest, attitude, motivation, and belief, which are naturally thought to be unique only to the individual, are caused by many external factors such as the environment and society in which the candidate teacher lives. These factors that cause candidates to think negatively towards the profession are not only the problem of the individual but also the society in which they live and the states that give direction to the society in question with their education and economic policies. Investment in humans, which is a very long and hard investment, whose results can only be seen in the medium or long term, may have irreversible consequences in the long term. For this reason, the responsibilities of teacher training institutions are becoming more important (Yıldırım & Kalman, 2017; Uğraş & Güllü, 2019). A teacher needs to be treated like a doctor, a soldier, or a policeman, who plays critical roles in human life, with her/his decisions in the field of health and safety, must be carefully educated and fully prepared for the profession. The critical point here is the “teacher education” process (Darling et al., 2005; Aktağ & Walter, 2005). In these institutions, an education program and content that will keep the motivation and belief of the candidate

teacher alive and high must be determined. Also, if the academic staff in the institutions that give teacher education program to the candidate teachers cannot adequately recognize the candidate teacher and the changing world conditions, it will not be realistic to be too expectant of the teacher candidate who will be presented as an outcome of this process. Physical education teachers may feel inadequate due to their undergraduate education (Uğraş et al., 2019). They stated that candidate teachers with a low level of professional belief do not think of becoming teachers due to both personal reasons and the quality of education, social and economic picture, or they will leave the profession after a certain period. As mentioned before, the teaching profession is a professional group that is the main actor in education, which directs society and is one of the basic needs of people such as health and safety. It should not be considered in a teacher candidate's special that teachers who guide education, which is one of the basic needs of society, do not start their professions willingly or lose their desires, beliefs and excitement shortly after they start, which they see as role models for children and young people even before their family members. External factors that motivate candidate teachers to think in this way should also be evaluated. Teachers with low professional faith levels should be considered that they will have negative consequences on the individuals and therefore society. The more the demands of members of this professional group are met during their education and working life, the more efficiency will be obtained from them. This situation will cause teachers to focus on the children they will touch their lives instead of worrying about whether they can be appointed or not, and the negative atmosphere of physical education teaching in our country will gradually dissipate. Besides, "candidate teacher education" needs to be reconsidered for our country, both based on educational institutions and within the framework of the education policies in force. If necessary, a gradual decrease in the number of teachers who will graduate and potentially start working in a year, while increasing the content, density and quality may help to solve this problem in the medium and long term. After this basic problem is solved, other negative situations such as "insufficient salary", "counting on the spot", "perception of negative physical education teacher in the society", "working conditions" and "difficulty in being appointed to the profession" may be solved more easily. It can be said that the problems will not even come to the agenda.

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Transformational teaching in higher education: The relationship between the transformational teaching of academic staff and students' self-efficacy for learning

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Abstract

This study examined the the relationship between the transformational leadership behaviors of the faculty members and the students' self-efficacy beliefs in learning based on the opinions of higher education students. The research was carried out with 915 students studying at Yozgat Bozok University and analyzed by quantitative methods. The *Transformational Teaching Scale* (TTS) developed by Tahir (2018) has been adapted to Turkish in order to determine the transformational teaching levels of the instructors. Self-efficacy for Learning Scale (SELS) developed by Klobas, Renzi and Nigrelli (2007) has been adapted to Turkish in order to determine the higher education students' self-efficacy in learning. In the analysis of the data, descriptive statistics and the structural equation model were used. As a result of the research, sub-dimensions of transformational teaching, *considerate intellectual stimulation* and *charisma*, were found to have positive relationships with dimensions of self-efficacy for learning, *finding and info processing*. It has been determined that the transformational teaching is a significant predictor of learning self-efficacy of students.

Keywords: Transformational leadership, transformative teaching, self-efficacy for learning

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Introduction

Technological developments, innovations in the field of information accelerate organizational change and differentiate social expectations. The learned information requires continuous updates to adapt to the age. At this point, the most important goal of higher education institutions that prepare individuals for their future professions is to give individuals the ability in lifelong learning. Nowadays, learning cannot be limited only to the school, therefore, self-efficacy for learning have great importance for individuals.

The opinions of individuals about how they are perceived by their environment and the behavior of those around them affect their self-efficacy belief (Linnenbrink & Pintrich, 2002). In this regard, it can be stated that the faculty members who believe that students can learn, improve themselves, who are influential on students with their individual charisma and have adopted transformational leadership, would lead an increase in students' learning self-efficacy. From this point of view, the relationship between the transformational teaching of the teaching staff and the learning self-efficacy of the students was examined in this research.

Transformational teaching

Transformational leadership, also accepted as one of the new leadership approaches, has covered a wide range of leadership research in the past 20 years (Bryman, 1992). The growing interest in transformational leadership, defined by Burns (1978) as the process in which leaders and followers interact to elevate each other to a higher level of motivation, performance and morality, is due to the positive relationship between transformational leadership in organizations and the employees' organizational attitudes (Dede, 2019; Yukl, 1989), trust level (Pilla, Schriesheim and Williams, 1999; Dirks and Ferrin, 2002), performance (Garcia-Morales, Llorens-Montes & Verdu, 2008). Transformative leaders, defined as interactive, passionate, empowering, visionary and creative in the literature, are the leaders who express a realistic vision of the future, intellectually stimulate their subordinates and take into account individual differences (Hackman and Johnson, 2004; Yammarino & Bass, 1988).

Relying on the positive results in different sectors, it has been assumed that it would be useful to transfer the transformational leadership theory to teaching. The idea that the transformational leadership carried out in organizations can be transferred to the teaching environment is based on the understanding that the educational institutions are also organizations. Covering processes such as communication, organization and supervision (Barnard, 1938; Kuchinke, 1999), presence of tools such as reward and pressure, and differences in power among organization members such as expertise and authority (Raven and French, 1958), leaders' responsibility in influencing, initiating, focusing, determining and coordinating a targeted activity (House and Podsakoff, 1994) can be listed as common points of organizational leadership and teaching leadership. When teaching environments are

evaluated as organizations, teachers or academic staff are positioned as leaders and students as followers (Pounder, 2008; Weaver & Qi, 2005).

Higher education institutions are considered as a social organization where there are differences of power between individuals, responsibilities taken by everyone, exchange of ideas, formal and informal relations. Accordingly, the idea of the implementation of transformational leadership in higher education institutions has been accepted. (Pounder, 2008; Weaver & Qi, 2005). Especially, the idealized effect of the academic staff in other words, their charisma and their ability to provide intellectual stimulation are in accordance with higher education.

Bass (1985) improving Burns's (1978) theory, explained transformational leadership behavior in four dimensions as *idealized influence*, *intellectual stimulation*, *individualized consideration* and *inspirational motivation*. In the literature these dimensions have been preferred. *The idealized influence* is the charisma of the transformative leader, and the leader's ability to express vision to followers and motivate them to participate in the vision (Bass, 1999). The idealized influence provides strong emotions and identification between the leader and his followers (Yukl, 2006). As a result, followers have a high degree of confidence in the leader (Bass, 1985). *Intellectual stimulation* is that the leader encourages his followers to question even tried and succeeded paths and always seek for better. Intellectual stimulation is an important element of organizational learning and change. Brown and Posner (2001) noted that the intellectual stimulation component of transformative leadership played a useful role in organizational learning because it reflected the value that leader gives to the learnings of both himself/herself and the followers. Intellectual stimulation encourages followers to challenge, question, and thus innovative thinking (Bass & Steidlmeier, 1999).

Individualized consideration is the leader's encouragement, support and coaching to his followers (Yukl, 2006). Individualized interest occurs only when strong relationship is developed between the leader and his followers. Being a mentor and coach, leaders recognize and take the individual development needs of followers into account. They help their followers realize their potential. (Barnett, McCormick & Connors, 2001; Bass & Steidlmeier, 1999). *Inspirational motivation* is leaders' ability to move their followers towards realization of the vision with appropriate behavior models and organizational symbols. Transformational leaders give meaning to the vision itself and the process of reaching vision, and ensure that the group focuses on vision despite the obstacles that may arise (Kent, Crotts & Azziz, 2001).

When the transformational leadership is transferred to the teaching, it is examined within similar dimensions. Ingram (1997) and Yuen and Cheng (2000) have classified the transformational leadership behaviors of educators as *inspiration*, *social support* and *facilitation*. *Inspiration* means creating a vision and providing motivational tasks; *social support* means supporting a learning culture, providing support networks, and managing conflicts; and *facilitation* means developing knowledge

and skills and creating intellectual stimulation (Yuen & Cheng, 2000). Tahir (2018), who has examined the characteristics of the transformational leadership of the instructors, combined the four-dimensional structure and formed two dimensions: *considerate intellectual stimulation* and *charisma*. *Considerate intellectual stimulation* involves the behaviors of transformational academic staff that take into account the individual differences of students, support them according to their needs, and encourage them to venture into innovation. *Charisma* refers to the teaching staff's knowledge of expertise and communication skills and their ability to guide and influence students towards target.

Transformational leaders increase the motivation of their followers and encourage them to perform at the highest level they can reach. Transformational educational leaders also support their students for higher academic achievement and personal development (Slavich and Zimbardo, 2012). They focus on each student individually (Mulford & Silins, 2003) and support them by appreciating their work and taking into account their individual opinions. They can transfer the goals of school and education to students and encourage them regarding these goals. While encouraging students to seek better, they raise awareness of the current situation and what can be done in the future (Mulford & Silins, 2003).

Harrison (2011) stated that through *individualized consideration*, academic staff deal with each student as an individual and enable them to progress in their personal development and thus reach their potential. Transformational teaching leaders can create excitement among students through their charisma and considerate intellectual stimulation, and convey the mission and vision to students by gaining their respect (Banjeri & Krishnan, 2000; Tahir, 2018). Studies conducted in the literature show the importance of transformational teaching leaders in creating an effective teaching environment (Boyd, 2009; Cheng, 1994). Transformational teaching leaders who are open to innovation and willing to change, both for themselves and for other members of the organization, provide intellectual stimulation in the classroom by making students realize the assumptions that restrict their thinking (Boyd, 2009).

Self-efficacy for Learning

Self-efficacy refers to a person's belief in his/her ability to learn or perform actions at a certain level (Bandura, 1977). It is the individual's personal belief in the ability to make and organize arrangements to perform a task or to solve a problem (Eccles & Wigfield, 2002). Learning self-efficacy is the limitation of self-efficacy definitions to learning. In other words, it is the belief of the individual that he/she can make the necessary arrangements to learn. Learning self-efficacy also includes learning self-regulation, which means that the individual regulates his/her behaviors in the learning process by monitoring and controlling his/her behavior, emotions and motivations (Polleys, 2002). In this process, the individual determines the learning objectives and makes arrangements accordingly. The belief that you can reach the goals is self-efficacy belief.

Self-efficacy is a broad concept and gives more valid results when it is evaluated at a level specific to the target area (Bandura, 1986; Pajares, 1996). For example, by examining the general self-efficacy belief, the prediction of academic self-efficacy beliefs may not produce significant results. Individuals' self-efficacy beliefs vary in three dimensions; level, strength and generality (Bandura, 1997; Holladay & Quinones, 2003). The belief in the *level* of difficulty that people can achieve affects their belief in their *strength* to achieve that level. *Generality* indicates that the competence belief related to an activity can be generalized to a series of similar activities within the same field of activity (Holladay & Quinones, 2003). From this point on, it is stated that a general belief in learning, rather than a single subject area, can be addressed (Klobas, Renzi & Nigrelli, 2007).

Studies in the literature show that learning self-efficacy is positively correlated with students' efforts for learning goals and their resistance to difficulties (Cavaco, Chettiar & Bate, 2003; Niemczyk & Savanye, 2001; Pintrich, 1995). Academic motivation of students also increases in parallel to learning self-efficacy, so they perform better (Pajares, 2003; Niemczyk & Savanye, 2001). Learning self-efficacy ensures that the individual insists on learning activities and increases their expectations and improve their performance in these activities (Zimmerman, 1995). In addition, Bandura (1997) suggests that self-efficacy beliefs are effective in the choice of behaviors. Individuals tend to prefer behaviors that they have high self-efficacy beliefs, in other words, the actions they believe they can achieve. From this point of view, it can be thought that the development of learning self-efficacy in higher education has a significant effect on the lifelong learning of university students. Individuals with high beliefs in that they can learn, would approach the new conditions they face with confidence and consider the changes as an opportunity.

Individuals' personal characteristics, behaviors and environmental variables affect each other in mutual relationship. Therefore, self-efficacy beliefs of individuals are also influenced by the environment and the behaviors exhibited towards them (Linnenbrink & Pintrich, 2002). At this point, it can be stated that the faculty members who adopt different leadership approaches will lead a difference on the beliefs of students' self-efficacy. The transformational teaching leadership involves the behaviors that stimulate students intellectually, evaluate each student as individuals with differences and encourage them. Therefore, it is considered that the academic staff who show the transformational teaching leadership will increase the students' self-efficacy for learning.

Studies have revealed that transformational teaching affects the student's motivation (Bolkan and Goodboy, 2009; Griffith, 2004; Kuchinke, 1999; Politis, 2001; Pounder, 2008; Hoehl, 2008), attitude to the school (Walumbwa, Wu, & Ojode, 2004; Slavich & Zimbardo, 2012), confidence in the faculty member (Pounder, 2008; Hoehl, 2008), commitment (Slavich & Zimbardo, 2012), the level of attendance in the course (Kuchinke, 1999; Leithwood & Jantzi, 2000) and ultimately academic performance (Bolkan & Goodboy, 2009; Griffith, 2004; Kuchinke, 1999; Politis, 2001; Harvey, Royal

& Stout, 2003; Kinicki & Schriesheim, 1978; Pounder, 2008 Boyd, 2009; Pounder, 2004). In the literature, there are studies revealed the positive influence of transformational teaching leaders on students. Slavich (2006; 2009) revealed how teachers can be leaders and how they can motivate students by convincing to understand the common vision for a course, which encourages them to realize their potential. Similarly, Boyd (2009) explained that transformational leaders provide students with a compelling and larger vision of their education and future. Beauchamp and Morton (2011) revealed that transformational teaching of teachers increase students' motivation and influence their beliefs towards the class positively. The findings of Morton et al. (2010) and Beauchamp et al. (2010) are also in line with this finding. In this context, it can be thought that the individual attention, encouragement and intellectual stimulation shown by the academic staff will also increase students' self-efficacy for learning. In the 21st century, the main goal of education is to teach individuals how to learn. In today's rapidly changing conditions, for individuals who are aware of how they learn, changes and updates are only elements that will not disrupt the flow of life. At this point, individuals' beliefs in self-efficacy for learning are of great importance. Especially, the high levels of self-efficacy of new adults who will have important roles in society and the examination of academic staff's leadership that may increase students' self-efficacy beliefs will contribute to the field. The aim of this study is to examine the relationship between the transformational leadership behaviors of the academic staff and the students' self-efficacy for learning. Accordingly, the following questions have been sought.

1. What is the level of academic staff's transformational teaching leadership and students' self efficacy for learning?
2. Is there a significant relationship between academic staff's transformational teaching leadership (charisma and considerate intellectual stimulation) and students' self-efficacy for learning (info processing and finding)?
3. Is academic staff's transformational teaching leadership (charisma and considerate intellectual stimulation) a significant predictor of students' self efficacy for learning (info processing and finding)?

Method

Research model

This study is a quantitative study designed in the survey model. In this model, the relationship between two or more variables is determined (Karasar, 1999). According to the opinions of higher education student, it is aimed to describe the current state of relationship between the transformational teaching levels of academic staff and the learning self-efficacy of students. Model of the research is presented in Figure 1.

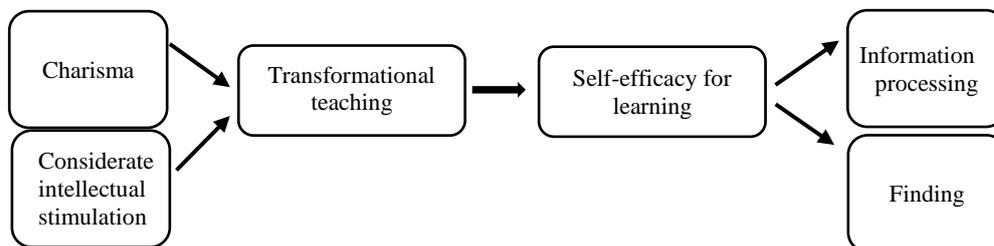


Figure 1. Research Model

Population and Sample

The population of this research is the university students who are studying at Yozgat Bozok University in the 2019-2020 academic year. The entire population consists of 20917 students who continue their studies. Since the entire population cannot be reached, the research was carried out by the sample. Stratified sample method was preferred to reach the minimum number of students according to the student ratio in each faculty. Simple random method was followed to reach a sufficient number of students. The sample determination formula was used to determine the sample that could represent the 20917 population of the study (Erkuş, 2017). According to this formula, 378 participants can represent the population. The data were collected through *googleforms* on a voluntary basis and 915 students participates to the study.

When the participants data of the study is examined, it is observed that 69.4% (635) of the participants are female while 30.6% (280) of them are male. 405 of the participants (44.3%) are students in the 1st grade, 258 (28.2%) of them are in the 2nd grade, 171 (18.7%) of them are in the 3rd grade and 81 (8.9%) are in the 4th grade of their education. In the reseach there are 51 students from School of Physical Education and Sports, 165 from Faculty of Education, 108 from Faculty of Arts and Sciences, 71 from Faculty of Economics and Administrative Sciences, 171 from Faculty of Theology, 32 from Faculty of Communication, 94 from Faculty of Engineering, 36 from Faculty of Health Sciences, 52 from Faculty of Medicine, 96 from Vocational School of Health Sciences and 60 from Vocational School of Social Sciences.

Data Collection Tools

Transformational Teaching Scale (TTS): The scale was developed by Tahir (2018) to determine the level of transformational leadership in teaching and was adapted to Turkish as part of the current study. Permission was obtained from the responsible author before the adaptation process. The scale items were translated into Turkish by language experts. The items translated into Turkish were re-translated into English and examined in terms of language equivalence and found appropriate. Pilot application of the scale was realized with 209 participants. Confirmatory factor analysis (CFA)

was applied to the collected data and the fit values of the scale [$\chi^2 = 258,659$; $\chi^2 / df = 2.192$; CFI= 0.92; TLI= 0.91; RMSEA= 0.07] confirmed the two-factor structure of the scale.

The scale consists of two dimensions called *considerate intellectual stimulation* and *charisma*. *Considerate intellectual stimulation* dimension includes items such as "Treat students as individuals with different strengths and weaknesses" and "Engage students in critical thinking in the class". In the dimension of *charisma*, there are items such as "Attract great admiration" and "Show empathy for students' struggles to learn". It has 5-point Likert structure ranging from 1 (strongly disagree) to 5 (strongly agree). For reliability analysis of the scale Cronbach alpha values were examined and calculated as .90 for *considerate intellectual stimulation*, .88 for *charisma*, and .93 for the entire scale. Accordingly, the scale was determined to be reliable.

Self-efficacy for Learning Scale (SELS): The scale was developed by Klobas, Renzi and Nigrelli (2007). The scale consists of ten items and two dimensions. It was adapted to Turkish as part of the current study. It has 5-point Likert structure ranging from 1 (strongly disagree) to 5 (strongly agree). *Info processing* dimension has items such as "When I find something new about a topic that I am studying, I am able to connect it with other things that I know about the topic" and "Soon after the end of a lesson, I am able to distinguish the most important concepts from concepts of less importance". The dimension of *finding* includes items such as "I am able to decide whether to go to the library or use the web, based on the type of information that I am seeking" and "I am [usually, always] able to identify useful information on the web for an essay".

In the adaptation process, permission was obtained from the author who developed the scale. The scale items were translated into Turkish and then re-translated to English to control language equivalence. Items were found appropriate by the language experts. 209 people participated in the Pilot application and the validity of the Turkish version of the scale was questioned with the CFA. Fit indexes [$\chi^2 = 152,134$; $\chi^2 / df = 4.47$; CFI= 0.91; TLI= 0.90; RMSEA= 0.07] of the scale was determined to be valid. As a result of reliability analysis, Cronbach alpha coefficient was calculated .83 for *the info processing* dimension; .88 for *finding* and .88 for the whole scale. As a result, the scale was found to be reliable.

Analysis of Data

This research was conducted with the students of Yozgat Bozok University in the 2019-2020 academic year. Within the scope of the research, the personal information form, TTS and SELS were used. The missing data was checked and deleted prior to the analysis phase. As a result of the normality and outlier analysis, 17 scales were removed from the data set. A total of 898 scales were found to be appropriate for the analysis.

The skewness (-1.215 to .434) and kurtosis (-.246 to 1.278) values accepted as the signs of normal distribution of the data (Tabachnick and Fidell, 2013). VIF and tolerance levels were examined to control the multicollinearity problem between variables. In order to avoid multicollinearity problem, VIF value must be less than 10, tolerance values must be equal to 0.20 or higher (Multistay, Şekerçioğlu and Büyüköztürk, 2010). In the current study, it was determined that VIF values (2.74; 2.75, respectively) and tolerance values (.364; .364, respectively) of *considerate intellectual stimulation* and *charisma* dimensions were in the acceptable range. It was found that the correlation values between dimensions are lower than .80, and the data does not have multiple connection problems based on these results (Table 1).

During the analysis phase, the data was analyzed using descriptive statistics. To determine the transformational teaching levels of the academic staff and the learning self-efficacy levels of the students average and standard deviation scores were used. Structural equality model was used to determine the predictor effect of transformational teaching on students' self-efficacy for learning. Mplus7 and SPSS programs were used in the analysis of the data.

Results

In this section, the transformational teaching levels of the academic staff and the learning self-efficacy of the students were examined according to the opinions of higher education students. The findings on the level of students' learning self-efficacy and transformational teaching and of the academic staff were revealed. Table 1 presented the descriptive results of research variables.

Table 1. Descriptive results and correlation coefficients of transformative teaching and self-efficacy for learning

Variables	Mean	Df	1	1a	1b	2	2a	2b
1.Transformational teaching	3.56	.856	1					
1a. Charisma	3.43	.916	.773**	1				
1b.Considerate Intellectual Stimulation	3.68	.899	.753**	.797**	1			
2.Self-efficacy for learning	3.98	.730	.587**	.515**	.594**	1		
2a. Info processing	3.86	.779	.600**	.542**	.594**	.737**	1	
2b. Finding	4.15	.813	.436**	.362**	.461**	.767**	.638**	1

**p<.01

Findings regarding the first and second research questions are presented here. As can be viewed from Table 1, the average of students' learning self-efficacy level is \bar{x} =3.98 and the average of academic staff's transformational teaching behaviors is \bar{x} =3.56. Both averages are higher than *moderate* level and close to *high* level. When the relationship between variables was examined, a *moderate* level positive relationship was found between academic staff's transformational teaching level and students' learning self-efficacy (r =.566; p <.01). Regarding the sub-dimensions, there is a

positive *moderate* relationship between *charisma* and *info processing* dimensions (.587; $p < .01$) and *finding* dimension ($r = .420$). Moreover, it was observed that *considerate intellectual stimulation* has a positive *moderate* meaningful relationship with *info processing* dimension and the *finding* dimension ($r = .594$; $r = .461$; $p < .01$, respectively). The findings on the prediction level on the students' self-efficacy for learning are presented in Figure 2.

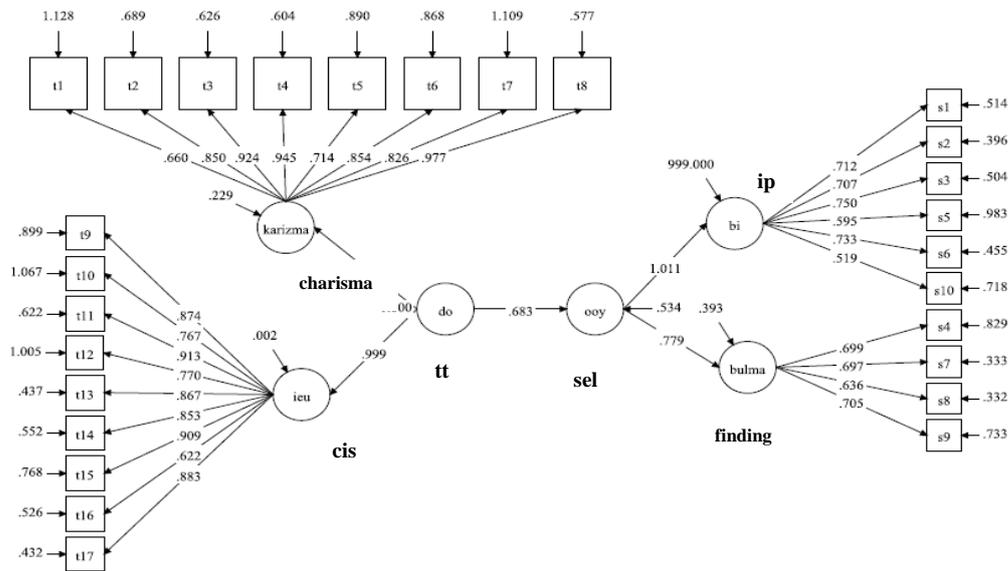


Figure 2. Path analysis

In this section, findings regarding the third sub-question of the research is revealed. As can be observed from Figure 2, it was determined that the path coefficients of all items that make up the transformational teaching scale and self-efficacy for learning scale are significant ($p < .05$). Moreover, the independent variable, academic staff's transformational teaching behaviors, was found to be a significant predictor of the dependent variable, students' learning self-efficacy ($\beta = .683$, $p < .05$). The values of RMSEA, SRMR and CFI should be reported for the fit of the model (Kline, 2005). First of all, the ratio of χ^2/df is expected to be below 5. The value indicates 'excellent' fit when it is $\leq .05$ for RMSEA; $\leq .08$ for SRMR; and $\geq .95$ for CFI, and .90 indicates 'acceptable' fit for CFI (Kline, 2005; Hooper Coughlan & Mullen, 2007). When the fit values of the current study were examined, it was observed that the model showed high level of fit [$\chi^2 = 1427.407$; $\chi^2/df = 319$; RMSEA = .06; CFI = .90; TLI = .90; SRMR = .04].

Discussion, Results and Suggestions

According to the opinions of higher education students, this study aimed to examine the relationship between the transformational teaching levels of the academic staff and the students' self-efficacy for learning. Firstly, the transformational teaching levels of the academic staff and the self-efficacy levels of the students were examined. The transformational teaching level of the instructors

was close to the high level. Similarly, Eker (2019), in her study examining the transformational leadership behaviors exhibited by lecturers according to the views of university students, revealed that lecturers display transformational leadership behaviors at a high level. Most of the studies in the literature deal with the transformational leadership behaviors of managers (Kahya, 2020; Başaran, 2020; Yang, 2014). Among these studies, Çelik and Eryılmaz (2006) found that school principals exhibit transformational leadership behaviors at a moderate level. In terms of the sub-dimension of transformational teaching, *considerate intellectual stimulation*, was found to have a relatively higher average than *charisma* dimension. Based on this finding, students believe that academic staff have individual influence. This influence, which can be expressed as idealized effect or charisma, shows that there is strong feeling and identification between the academic staff and the students. The intellectual stimulation encourages followers to always question, seek innovation and push them to improve. Accordingly, it can be stated that students find the instructors challenging for their improvement.

As a result of the study, it was determined that the students' learning self-efficacy levels were very close to the high level. This finding is parallel to the findings of Sökmen (2019) who studied the role of self-efficacy in the relationship between the learning environment and student engagement. Sökmen (2019) has found that students have *high* level of self-efficacy. On the other hand, Güç (2019), in her mixed method research, revealed that students' self-stated self-efficacy level is *moderate*. The levels of self-efficacy in *finding* dimension were found to be relatively higher than the *info processing* dimension. Students believe they can identify and obtain the necessary materials for their learning. Beyond accessing materials and resources, *info processing* dimension involves using these resources to initiate a new learning process. It can be stated that the active use of the learned information, such as being able to identify the important points of the learned subject and to evaluate them with comparisons, is more difficult than identifying information sources. The belief in the difficulty level of a job also affects the self-efficacy beliefs of individuals (Bandura, 1997; Holladay & Quinones, 2003). Therefore, the finding of students' having a relatively lower belief in information processing can be explained within this framework.

Current research shows that there are meaningful, positive and *moderate* relationships between the subdimensions of transformational teaching of academic staff and learning self-efficacy of students. It has been determined that the transformational teaching behaviors of the academic staff are significant predictor of students' self-efficacy for learning. According to these results, as the transformational teaching levels of the academic staff increase, students' level of self-efficacy for learning also increase.

One of the elements that constitutes the self-efficacy belief is individual's opinion on how he/she is perceived by the environment. In other words, the individual observes how he/she is

evaluated and regulates his/her self-efficacy belief based on these assessments. Transformative teaching leaders reflect students that they believe students can achieve. They support them to realize their potential. They always lead them to new learning opportunities by providing intellectual stimulation. Therefore, it can be stated that the transformational teaching behaviors of the instructors positively affect students' learning self-efficacy.. This finding is consistent with the studies of Warlizasusi, Supriyati and Karnati (2018) who revealed that via direct positive effect transformational leadership can lead improvement in self-efficacy in learning. Similarly, studies of Morton et al. (2010) and Beauchamp et al. (2010) demonstrated that students' self-reported motivation and self-efficacy belief is positively influenced by teachers' transformational teaching leadership.

Peters (2014) observed a positive relationship between transformational leadership behaviors of teachers and students' performance. Similarly, Harrison (2011) revealed that thanks to the individualized consideration, academic staff deal with each student as an individual and support their personal development, thereby enable students to reach their potential. Transformative teaching leaders support their students for a high-level academic achievement and personal development. (Slavich & Zimbardo, 2012). Transformational leaders value learning and innovative thinking, thus encourage their followers to question and challenge (Bass & Steidlmeier, 1999).

As a result of the study, it was determined that the transformational teaching behaviors of the academic staff are significant predictor of students' learning self-efficacy. The positive impact of self-efficacy belief on academic success and the fact that learning self-efficacy is critical in lifelong learning (Aslim and Kocabatmaz, 2019; Linnenbrink and Pintrich, 2003) makes transformative teaching behaviors of academic staff more important and critical. Peters (2014), as a result of his experimental work, revealed that transformational teaching behaviors can be learned. From this point of view, it should be aimed for the academic staff to improve themselves in becoming transformational leaders.

In fact, the main purpose of transformative leadership is to empower, inspire and challenge individuals to achieve their best personal and collective potential (Bass and Riggio 2006; Beauchamp and Morton 2011). In this direction, making teaching goals more and more difficult in the process and supporting students will provide new opportunities for students to improve themselves and increase their self-efficacy belief in learning. In addition, the charisma of the academic staff, their field mastery, their openness to innovation and learning, will affect students in line with their role model.

This study is limited to students studying at Yozgat Bozok University in the 2019-2020 academic year. Based on the results of this study, it may be recommended to inform academic staff through various trainings about the positive effects of transformational leadership behavior and the application of transformative leadership in teaching. Based on the relatively lower self-efficacy of the students regarding info processing, it would be useful to create application opportunities where they

can actively use the learned knowledge in order to improve themselves. In addition, repeating this study with larger study groups in different universities may help to describe the relationship between variables in more detail. In the future studies, the mediating relationships with variables such as academic motivation and resilience can be examined. The effect of transformational teaching and students' self-efficacy for learning on student performances can be observed.

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The Effect of Teacher Evaluation and Self-Evaluation on Pre-service Teachers' Inquiry-Based 5E Lesson Plan Design and Teaching Practice

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Abstract

The purpose of this study is to investigate the effect of teacher evaluation and self-evaluation on the experience of designing and applying lesson plans according to the 5E inquiry model and pre-service teachers views regarding the 5E inquiry lesson planning and teaching practice. It was designed as the embedded mixed method. Total of 60 pre-service science teachers participated in this study. The data collected by the 5E Lesson Plan rubric for inquiry-based teaching which developed by Goldston et al., (2013), self-evaluation form, and interviews. In the analysis of quantitative data, Wilcoxon Signed Ranks test and Spearman's Rank Correlation, which are among the nonparametric tests, were used. Content analysis was performed in the analysis of qualitative data. Results showed that the average score of pre-service teachers' lesson plans is higher in the second plans. It has been determined that self-evaluation contributes to better planning of the process. The pre-service teachers stated that the 5E inquiry model was particularly strong / effective and their lesson plans' phases of explain and explore were weak. In line with the results obtained in the research, suggestions were made to evaluate and develop the lesson planning and teaching practice according to the 5E inquiry model.

Keywords: 5E lesson plan evaluation, 5E inquiry-based lesson plan, inquiry-based lesson plan rubric, self-evaluation, teacher evaluation

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Introduction

Inquiry-based science teaching played a crucial role in two reform documents, (National Research Council [NRC], (1998) and Benchmarks for Scientific Literacy [AAAS], 1993) in the 1990s in line with Project 2061 in America. Based on the reports published by NRC (1998), inquiry-based science teaching was described as (a) raising curiosity and ask questions; (b) proposing preliminary explanations or hypotheses; (c) conducting simple research; (d) collecting data and evidence based on observations; (e) making explanations based on evidence; (f) considering other comments, and (g) sharing explanations. Accordingly, it is aimed that students learn science subjects and grow up as scientifically literate people with their active participation in asking questions, observing, hypothesis, conducting research, creating evidence, interpreting, and sharing results. A course prepared in line with these goals, improves students' research skills, observation, and experimenting skills, and provides experience on issues such as analyzing, explaining, evaluating, presenting, discussing, and peer communication (Guler, & Şahin, 2019).

Although this approach has been introduced as an effective teaching method for a long time, there have been problems in its implementation by teachers (McHenry & Borger, 2013). Researchers determined that many teachers and pre-service teachers (PSTs) have naïve understandings about inquiry-based teaching (Lakin & Wallace, 2015). There are also some studies argued that PSTs successfully adopt inquiry-based education but are unable to implement it correctly (Capps & Crawford, 2013). For this reason, the studies about how teachers and PSTs plan the inquiry-based teaching and how they actually carry out these plans are still getting interest (Goldston et al., 2013; Lakin, & Wallace, 2015; McHenry, & Borger, 2013; Wang et al., 2020; Wilson et al., 2010).

Inquiry-Based Teaching

Inquiry-based teaching is very important for science teaching (Desouza, 2017) and has two main goals (Wang et al., 2020). The first is to gain a perspective on science. It provides an understanding of nature of science and scientific inquiry (SI) aspects through a series of activities conducted in line with scientific research, such as making observation, doing experiment, data collection, and making inference. The second is that it is an effective teaching method. With this method, it is possible to teach in a student-centered environment where teachers watch and facilitate the learning process of their students. This learning environment designed in four different ways; confirmation, structured inquiry, guided inquiry, and open inquiry (NRC, 2000; Bell et al., 2005).

Regardless of which level of the learning inquiry was designed, the quality of the process lies in the teacher's knowledge and ability to ask question, research, and explain. Goldston et al. (2013) point out that teachers give reasons for not using this approach in their research. According to this, it was showed that teachers often give the reasons like the pressure of managing the inquiry process,

requiring a lot of time, difficulties of attracting more students with advanced learning of the research process, lack of content knowledge, lack of confidence in answering students' questions, and difficulties of completing all other topics on time (Goldston et al., 2013). Other reasons why teachers present these reasons are that they do not have enough knowledge about inquiry-based teaching, or they have no experience or limited experience about this approach (Akben, & Köseoğlu, 2015; Capps, & Crawford, 2013), and the standards and evaluations offered by the curriculum put pressure on the teacher. (Wilson, 2009). These limited experiences present challenges for planning and implementing inquiry-based lessons (Davis, 2003; Namdar, & Kucuk, 2018).

5E Instructional Model

The 5E instructional model is based on a constructivist approach and has a learning process in which learners create new information alongside their current knowledge. Bybee (1997) re-examined, refined, and in parallel, published the 5E instructional model, one of the most effective teaching models in science education (Bybee et al., 2006; McHenry, & Borger, 2013). 5E teaching model is based on Piaget's mental development model (Desouza, 2017), Learning Cycle (3E) model (Atkins, & Karplus, 1962) consist of exploration, explanation, and expansion phases. The 5E instructional model has five phases; engage, explore, explain, elaborate, and evaluate (Bybee et al., 2006). The 5E model is an inquiry model that offers an opportunity for students to draw on their understanding of science concept.

The recent studies have showed that 5E instructional model is effective in terms of understanding the subject, increasing scientific reasoning, and developing a positive attitude towards science (Özsevgeç, 2006), eliminating misconceptions (Devecioğlu Kaymakçı, 2016; Kaynar et al., 2009), providing better understanding of the knowledge that requires interpretation (Cardak et al., 2008). While some researchers have denied the efficacy of the 5E inquiry model, (Klahr & Nigam, 2004; Kirschner et al., 2006; as cite in McHenry & Borger, 2013), more researchers argue this teaching model effective because it supports scientific thinking besides their acquisitions on conceptual learning (Ceylan & Geban, 2009; Kozcu Çakır, & Güven, 2019). Researchers (e.g., Mesci et al., 2020; Goldston et. al., 2013) have reported that 5E instructional model is useful for teaching inquiry for the ability to integrate both material and research methods into a variety of lessons.

In the context of Turkish science education, the 5E instructional model is often preferred and widely used for lesson planning and presentation in teacher training programs (Namdar & Küçük, 2018). Some researchers also focus on PSTs' views of using 5E teaching model (Bozdoğan & Altunçekiç, 2007), the problems they encounter when designing and implementing activities to appropriate model (Metin & Özmen, 2009), the criteria they determined and used in evaluating course materials (Namdar et al., 2017). For example, Metin and Özmen (2009) investigated PSTs' lesson planning and implementation experiences according to 5E instructional model. The results indicated

that PSTs have a limited understanding of (a) finding interesting activities, asking right questions to determine students' prior knowledge, and attracting students' attention to the subject at the engage phase; (b) finding interesting examples and activities that enable students to actively participate to the lesson, obtaining the necessary materials and using them effectively, and ensuring class discipline during the activities at the explore phase; (c) having enough information about the subject, making enough explanations, and knowing exactly what to do at the explain phase; (d) showing relate the subject to everyday life, identifying different problem situations, and knowing exactly what to do at the elaborate phase; and (e) asking effective questions that will cover the entire subject and suitable for the student level, and knowing how to evaluate at the evaluate phase.

The various assessment tools for evaluating the 5E inquiry lesson plan have been designed (Goldston et. al., 2013; Marshall et al., 2009). An analysis of research conducted origin has been observed in Turkey has limited efforts in this regard. For example, it has been determined that there are researchers who focus on the evaluation of lesson plans by developing a rubric for evaluating lesson plans that are not prepared according to 5E teaching model and targeted only on inquiry-based education, and there are also some researchers who focus on the criteria determined by the PSTs by using the 5E model based on inquiry and the criteria they use (Namdar et al., 2017). Saka et al. (2018) have developed a lesson plan rubric and course observation form only for open-ended inquiry. However, there are few studies on the experience of evaluating and implementing inquiry-based 5E lesson plan structures. However, for PSTs to be effective teachers, the need for research on practical knowledge of the 5E inquiry model still remains important.

The Self-Evaluation

The self-evaluation is a measurement and evaluation method that is parallel to constructivist learning theory. The purpose of self-evaluation can be expressed as creating feedback that encourages learning and performance improvements (Andrade, 2019). Besides noticing the students about what he/she can do, it also gives him/her the opportunity to review them (Şahin, & Şahin Kalyon, 2018). Ozoglu et al. (2008) state that self-evaluation allows students to take a more active role in their own learning. Self-evaluation used in the learning environment also had an impact on increasing class attendance (Kumandaş & Kutlu, 2013). When the opinions about its limitations are examined, it is prominent that self-evaluation is "difficult" and includes "subjectivity". Excessive self-evaluation of students' perception of success (Kösterelioğlu & Çelen, 2016), or the fact that successful students tend to see their achievements lower than they are, or those with low success tend to see their achievements larger (Ross, 2006) create suspicion about self-evaluation. Kutlu et al. (2008) suggest using rubrics (graded scoring key), checklist and open-ended questions to overcome these problems. In this study, PSTs were provided with self-evaluation as part of the evaluation process of the lesson plans.

The Significance of the Study

PSTs experience their first practices in the learning environment by preparing a lesson plan. Although the chosen teaching method is an important guide on how to shape the lesson plan, it may not be easy to plan it to reflect all the details of the teaching. Besides the difficulties in creating a lesson plan, it is not easy to evaluate the prepared plans equally by everyone. Evaluating this information and practices brings with it many methodological problems. Because, in a process that is not sufficiently structured, personal comments of observers can greatly change the results. The need for a teacher-friendly structured assessment tool that can concretely guide inquiry-based teaching practices and in terms of its use comes to the fore (Wang et al., 2020). Meeting this need can guide teachers and trainees as they prepare and implement an inquiry-based 5E lesson plan, as well as trainers who train teachers (Marshall et al., 2009) while evaluating the quantity and quality of inquiry-based teaching. In addition, participation of PSTs in the evaluation process helps them to deepen their learning on this subject and make it more meaningful. For this reason, self-evaluation is one of the most common ways of evaluating students during the teaching process (Kumandaş & Kutlu, 2013). In addition to potentially reducing the workload of teachers, student self-evaluation is assumed to have important learning benefits for students (Ozoglu et al., 2008).

In this study, the effectiveness of teacher evaluation and self-evaluation on the experience of designing and applying lesson plans according to the 5E inquiry model and PSTs' views regarding the 5E inquiry lesson planning and implementation process was investigated. Research questions are determined as follows.

1. How are differentiate between first and second lesson plans total scores and the phases of the 5E inquiry model according to the teacher evaluations?
2. Is there any relationship between teacher evaluations and students' self-evaluations?
3. How do PSTs' self-evaluations affect their lesson plans and their teaching practices?
4. What do PSTs think the 5E inquiry lesson planning and teaching practices (strengths and weaknesses of the process)?

Method

The embedded mixed method, which includes both qualitative and quantitative methods, was used in this study. Mixed method refers to the combination of quantitative and qualitative research, and its main priority is providing a better understanding of the research problem by taking advantage of both approaches (Plano Clark et al., 2008). In line with the purpose of the study, this research method was chosen because qualitative data (open-ended questions and interviews included in the self-assessment) are needed to complete the quantitative data obtained through the evaluation rubric.

In the PSTs' planning and implementing 5E inquiry lesson plans process, the impact of teacher evaluation and self-evaluation was conveyed in accordance with the research structure.

Participants

Sixty (14 male; 46 female) pre-service science teachers, who enrolled an undergraduate teacher education program at the two public universities from Turkey, participated in this study. Purposeful sampling method was used in participant selection. In this method, the characteristics that require compliance with the nature of the study are determined and the people who comply with these characteristics are reached (Christensen et al., 2014, p.150). It was observed that the participant group suitable for the research problem had knowledge and experience in creating science teaching, curriculum, and lesson plans. The research was carried out by taking the consent forms of participation of these PSTs voluntarily.

Research Process

The research was carried out within the scope of three courses which were special teaching methods course, laboratory practices in science teaching course that they were four hours a week and teaching practice course that was 2 hours a week, conducted by all the researchers throughout eight weeks. In the first three weeks, reminder information and practices were completed on inquiry-based teaching and the 5E instructional model. By setting an example of a science lesson, the instructors taught how to prepare and teach a science lesson using the 5E instructional model and introduced the 5E Lesson Plan (5E ILPv2) rubric for inquiry-based teaching (Goldston, et. al., 2013) (see Turkish version in Appendix 1), which was used in teacher evaluation and explained how to use it. After this lesson, a discussion was made on what was planned and done at each stage.

In the last five weeks, PSTs formed groups of two or three in a group. Then, PSTs with their partners were asked to prepare two 5E lesson plans. The 5E Lesson Plan Preparation Criteria and 5E Lesson Plan Template (Mesci et al., 2020) arranged according to the teacher evaluation rubric was given to guide the lesson plans to be prepared by the PSTs. They sent their lesson plans to the researchers by e-mail a few days before their teaching practice, and the lesson plans were reviewed by the researchers and feedback was given at least once. Then, PSTs updated their lesson plans according to the feedback, and practiced in the classroom with micro teaching method. The implementation process of each group was evaluated through class discussions. In this way, PSTs received informative feedback again from instructors and their peers. The researchers observed the PSTs' teaching practices and evaluated them with the 5E ILPv2 during the observation. In addition, PSTs filled the self-evaluation form individually after their teaching practices. In addition, semi-structured interviews were made with thirty PSTs at the end of the semester, and their opinions on their experience about the process were obtained.

Data Collection Tools

The 5E Lesson Plan (5E ILPv2) Rubric for Inquiry-Based Teaching (Teacher Evaluation)

This evaluation rubric, developed by Goldston et al. (2013), was first translated to Turkish independently by the researchers after obtaining the necessary permissions for its use. Later, the translations of the researchers were compared, discussed until the statements reached a common opinion for the expressions that differed, and the first translation of the rubric was completed. The translation of the rubric translated into Turkish was checked by a specialist with English language proficiency and it was determined that the translation was appropriate. In addition, it was presented to the opinion of two science education experts and the rubric was revised in the light of the feedback on the statements. A Turkish language expert was consulted to give the final shape of the rubric and the final rubric was created.

The evaluation rubric includes 7 sections, which are the general features of the lesson plan, the phases of the 5E instructional model and additional lesson plan components, and 28 criteria in total. The section containing the phases of 5E model contains 21 criteria. This rubric is Likert-type instrument with a range of 0–4 points per item. The sections in the rubric, the number of criteria and the highest-lowest scores that can be obtained are shown in Table 1.

Table 1. Sections in rubrics, number of criteria, highest and lowest scores

The sections in the rubric	Number of criteria	Highest score	Lowest score
General features of the lesson plan	3	12	0
Engage	4	16	0
Explore	4	16	0
Explain	6	24	0
Elaborate	3	12	0
Evaluate	4	16	0
Additional lesson plan components	4	16	0
Total	28	112	0

Unlike the original of the rubric, a small formal change was made. The free spaces are added to each section so that the person using the rubric can take notes. Thus, the researchers were able to write observation notes for these sections during the implementation of lesson plans. The researchers followed the written lesson plans submitted before the presentation and observed the PSTs, took their notes to the evaluation rubric, and completed the evaluation.

Self-Evaluation Form

Self -Evaluation form was created from open-ended questions (e.g., what are the three strongest and weakest aspects of your lesson plan? What would you change if you were to redo this plan/implementation?) and criteria in the 5E ILPv2. The open-ended questions are added to the end of

criteria in the 5E ILPv2. Thus, an opportunity was provided for PSTs to indicate the situations in which they could not express themselves during the presentations and discussions. Each PST individually evaluated their plans and practices on this form.

The Semi-Structured Interviews

The interviews were conducted with thirty participants at the end of the implementation process. Ten questions were asked about inquiry-based learning, lesson plan preparing, and implementation processes (e.g., strengths and improvements, difficulties faced, self-evaluation). Each interview took about twenty minutes. Interview questions were formed from the literature and the observations made by the researchers during the whole process. The interviews were recorded, and all audio recordings were transcribed for further analysis.

Data Analysis

As a result of normality analysis, it was determined that the data was not normally distributed. Therefore, the Wilcoxon Signed Ranks test and Spearman's Rank Correlation, which are among the nonparametric tests, were used in the rubric analysis used for teacher evaluation and self-evaluation. In addition, graphic representation from descriptive analysis was preferred.

The open-ended questions of self-evaluation and semi-structured interviews were analyzed by using content analysis. Content analysis is a technique that allows researchers to indirectly examine human behavior/thoughts (Fraenkel & Wallen, 2006). In accordance with the problem in the focus of the researcher, categorizing the information in the data source, making classification, reveals more clear results regarding the situation. Thus, the focus of the research becomes more pronounced and it can determine categories, themes, topics. By following this path, the researchers coded open-ended questions of self-evaluation and semi-structured interviews and analyzed by creating categories and themes.

Validity and Reliability

The reliability of the rubric is expressed as the scoring does not change from one rater to another (the interrater consistency) (Kutlu et al., 2009). One way to determine interrater consistency is to use the Cohen's Kappa formula for each subcategory. Cohen's Kappa (κ) may have a value between -1 and +1, and if value of kappa approach to + 1 then this implies that level of agreement between the two raters is high (Kılıç, 2015; Kutlu et al., 2009). κ value is explained as follows: .01 - .20 insignificant agreement; .21 --.40 poor agreement; .41 - .60 moderate agreement; .61 - .80 good agreement; and .81 - 1.00 very good agreement (Landis & Koch, 1977). When each sub-category is analyzed, Cohen's Kappa values are found to be between .42 and .70, that is, moderate and good level of compliance (The general features of the lesson plan [$\kappa=.70$, $p<.05$], engage [$\kappa=.55$, $p<.05$], explore

[$\kappa=.51$, $p<.05$], explain, [$\kappa=.66$, $p<.05$], elaborate [$\kappa=.42$, $p<.05$], evaluate [$\kappa=.54$, $p<.05$], the additional lesson plan components [$\kappa=.40$, $p<.05$].

Consistency among raters can be determined by looking at the level of compliance on the total scores obtained from rubrics (Kutlu, et. al., 2009). In this context, since the data of the total scores obtained because of the evaluation by two researchers with the teacher rubric tool were not normally distributed, the Spearman Brown Rank Differences Correlation coefficient was calculated and it was determined that there was a consistency between the two scores ($r_s=.993$, $p<.05$). In addition, to increase the reliability of the graded scoring key, it is better to create a grading between 4-7 to better reflect the difference between the students (Kutlu, et. al., 2009). In the evaluation rubric, as in the original, a 4-point grading (0 = not acceptable / unacceptable, 4 = very good) was used.

Expert opinion may be used to provide the validity of the graded scoring key (Kutlu, et. al., 2009). In this context, the opinions of 4 different experts (one English language expert, two science education expert, and one Turkish language expert) were consulted. For the reliability of qualitative data analysis, inter-coder agreement rate was found 90% with Miles and Huberman's (1994) formula "Consensus/ (Consensus + Disagreement) x 100".

Findings

How does the score of the first and second lesson plans prepared by PSTs change according to teacher evaluation?

During the research process, PSTs prepared two lesson plans and implemented each of them. To determine the difference between the teacher evaluations made for the first and second lesson plans, Wilcoxon signed rank test, which is one of the nonparametric tests, was applied and the results are presented in Table 2.

Table 2. Wilcoxon signed rank test results for difference scores between lesson plans

Lesson plan/implementation (1) Lesson plan/implementation (2)	N	Mean Rank	Sum of Ranks	z	p
Negative Ranks	11	17.27	190.00	-5.338	.00
Positive Ranks	49	33.47	164.00		
Ties	0				

When PSTs' lesson plans are compared, a significant difference was found between the second lesson plan total score and the first lesson plan total score ($z = -5.338$, $p <.05$). The second lesson plan total score was significantly higher than the first lesson plan total score.

In the lesson plans, *each phase of the 5E teaching model, features of the lesson plan, and additional lesson components* were evaluated separately. It has been determined that the average score for engage, explore, explain, elaborate phase of the 5E model in the PSTs' lesson plans were higher in the second plans (Figure 1).

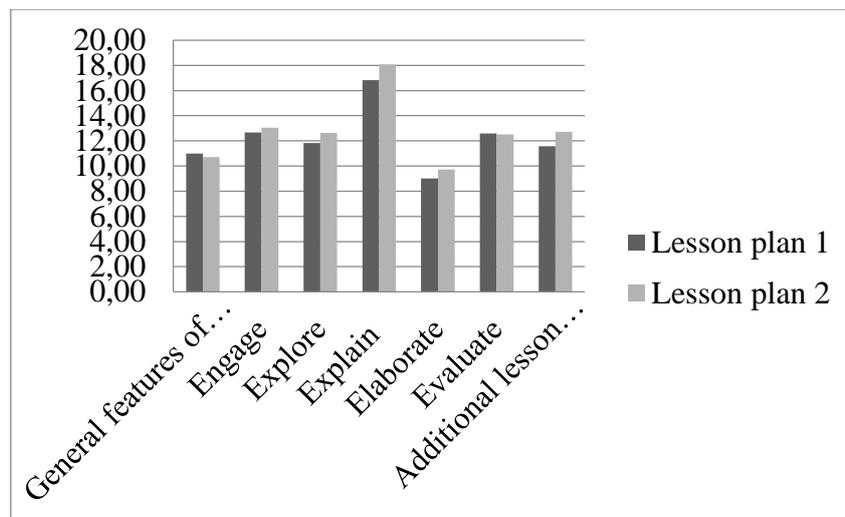


Figure 1. Comparison of the first and second lesson plan points

While the scores obtained from the PSTs' lesson plan features did not change, the scores obtained for the additional lesson plan components prepared for the transition to the next lesson were determined to be higher in the second plan (Figure 1). It was determined that the difference between the second lesson plan and the first lesson plan points was 0.39 points at the engage stage 0.8 points at the explore stage, 1.25 points at the explain stage, 0.72 points at the elaborate stage, 1.15 points at the additional lesson components stage and 13.65 points at the total score (First Lesson Plan \bar{X} =85.48, Second Lesson Plan \bar{X} = 99.13).

When the PSTs compared their first and second lesson plans/practices, it was determined that they thought their second plans were better. Student quotations on this subject are presented below:

E: Our second plan was better; I believe that we will be better and better with more experience. We learned from our shortcomings. In the second plan, we developed these shortcomings.

S: In the first implementation we were novice. Our second implementation was much better. We prepared the second plan more easily. Because we watched the lesson presentation of our other friends. Our teachers gave them feedback, and this was useful for us. The rubric helped us to prepare the lesson plan.

T: In our second plan, we better reflect the inquiry features. In the second plan, this was easier.

The Relationship Between Teacher Evaluation and Self-Evaluation

It was determined that there was a significant positive (moderate) relationship between the teacher evaluation total score (the average of the two researchers' evaluation) and the PSTs' self-

evaluation total score ($r_s = .473, p < .05$). Detailed information on evaluation scores is presented in Table 3.

Table 3. Teacher evaluation total score and PSTs' self-evaluation total scores

	N	Minimum	Maximum	\bar{X}	sd
Self-evaluation	120	71	112	96.05	9.51
Teacher evaluation (average)	120	46	111	87.45	15.76

While the PSTs made self-evaluation, they scored themselves between 71 and 112 points. In contrast, the researchers scored the PSTs between 46 and 111 points. According to this, while the average score of the self-evaluation of the PSTs was 96.05, the average score of the researchers was 87.45 points (see Table 4).

The Impact of Self-Evaluation

In the research, the effect of using the Self-Evaluation Form during the implementation process on PSTs was investigated. The PSTs stated that self-evaluation contributes to their better planning.

S: The evaluation form allowed us to take more planned steps. It showed at what stage, when and how I provided the inquiry.

O: Sometimes, while preparing the lesson plan, we looked at the criteria in it. We prepared the plan by making use of them.

Z: We planned the lesson considering the evaluation criteria. We decided to what was right at what stage by looking at the criteria and we made a better plan

Some PSTs consider self-evaluation as an opportunity to evaluate themselves. At the same time, PSTs stated that self-evaluation is effective in giving them a chance to re-evaluate their experience and to express themselves once again.

F: We wrote what we did on the self-evaluation form. When we wrote there, we thought more about our plan. We have seen our right and wrong. We developed our shortcomings and made our second plan.

H: It was a very necessary implementation. It provided re-think our strengths and weaknesses.

According to the discourses of the PSTs, one of the benefits of self-evaluation is to increase self-confidence.

E: The criteria in self-evaluation helped us about what we should do in our plans and practices. Evaluating myself with the self-evaluation form increased my self-confidence.

M: My self-confidence level has getting high in this process.

A small number of PSTs stated that self-evaluation is not as useful as discussion and feedback. Sample quotations of these PSTs are as follows.

E: Self evaluations were not very effective. The feedback and class discussions were more effective.

G: Self- evaluations have benefited, but not as much as other factors, like rubric.

When was asked to PSTs that what do you think about objectivity of self-evaluation, they stated that they carried out their evaluations in parallel with rubrics (criteria), feedback and classroom discussions.

M: I do not think it is wrong because there are criteria, so we did base on these.

F: I did not have any final grade anxiety. It was already to see what I could and could not do, not for the grade.

Y: You gave us feedback in the classroom and said our shortcomings. I think everyone has filled the self-evaluation forms accordingly.

Views on the Process of Preparing an Inquiry-Based 5E Lesson Plan

When examining the strengths and weaknesses of the PSTs' preparation and implementation of lesson plans, the results are presented in Table 4 about the pre-service science teachers' views of the process of preparing an inquiry-based 5E lesson plan.

Table 4. According to PSTs’ strengths and weaknesses of inquiry-based 5E lesson plan preparation and implementations

Theme	Sub-theme	Codes	f(L1*)	f(L2)	Representative Quotes by Pre-service Science Teachers		
Strengths of PSTs' preparing and applying of lesson plans	Stages of 5E Model	Engage	13	14	<i>"The stages of engage and elaborate were really good."</i> <i>"The engage part was effective."</i> <i>"It provided students with interest and motivation."</i>		
		Explore	7	11	<i>"Activities in Explore part provided students' hands-on and thinking skills."</i> <i>"The explore part was completely student-centered. The experiments were suitable for the inquiry process."</i>		
		Explain	3	2	<i>"I think all the question had been answered and the mistakes had been corrected in this stage."</i>		
		Elaborate	13	18	<i>"The elaborating stage was very productive."</i> <i>"We created brainstorming by giving examples from daily life in this stage."</i>		
		Evaluate	12	10	<i>"In the evaluation, the students were very active, and we tested whether they learned or not."</i> <i>"The evaluation process was very well understood. The students both had fun and tested what they learned about the subject."</i>		
	Teaching process	Student-centered	10	10	<i>"Students were active at the engage stage."</i> <i>"The given examples, experiments, questions were in the direction to engage the student."</i> <i>"The teacher should always be in a guiding position so as a teacher, we helped students learn and think by doing."</i>		
		Activities	11	15	<i>"The activities in the engage stage were interesting and aimed at increasing motivation. The demonstration experiment we did in the elaborating stage was good and our evaluation activity was really effective."</i> <i>"The experiments and activities were suitable for the class level."</i>		
		Interest/curiosity/attention	7	11	<i>"The curiosity of the students has been increased at every stage. The students were encouraged to research by asking questions."</i> <i>"An engaging, intriguing discussion environment was created."</i>		
		Weaknesses of PSTs' preparing and applying of lesson plans	Stages of 5E Model	Engage	13	8	<i>"We couldn't ask the right questions. Activities for revealing students' prior knowledge were limited."</i> <i>"The engage phase was insufficient. We could not make the best atmosphere for the discussion of the students."</i>
				Explore	14	7	<i>"Our weakness was that the problems were not understood during the explore stage."</i> <i>"Problems were not clear and understandable"</i> <i>"The student should be more active during the discovery phase. We were insufficient in this regard."</i> <i>"We fell into misconceptions."</i>
Explain	16			16	<i>"The students could have been more active in the explain stage."</i> <i>"We could have given the students the opportunity to explain the topic."</i> <i>"In the summarizing of the topic, the students would have made the explanation of the concepts; not the teacher."</i>		
Elaborate	4			2	<i>"We could discuss students' answers with the whole class, but we could not."</i> <i>"We couldn't do an activity that would relate students' knowledge to their daily life."</i>		
Evaluate	9			7	<i>"The questions asked in the evaluation were not clear and understandable."</i> <i>"One of our weaknesses was that the true and false questions were missing and inverted sentences."</i>		
Teaching process	Student-centered		17	13	<i>"The activities were the teacher was centered."</i> <i>"I couldn't keep the student active."</i> <i>"I couldn't make the students activate."</i> <i>"During the activities I felt it would be hard to control class management in crowd class."</i>		
	SI Aspects		5	7	<i>"We couldn't emphasize the SI aspects."</i> <i>"We did not mention the SI."</i> <i>"In the lesson plan, we could not address the SI aspects at the right place and right time."</i>		
	Asking Question		7	6	<i>"I couldn't return the questions back to the students. So I couldn't make them to think with questions."</i> <i>"We couldn't ask different and thought-provoking questions."</i> <i>"In the engage stage, our questions did not create a process that prepares students to inquiry"</i> <i>"We couldn't ask questions that would reveal students' prior knowledge."</i>		
	Special needs		6	5	<i>"It was hard to prepare activities according to special needs students."</i>		
	Time Management		9	3	<i>"The recommended time was insufficient."</i> <i>"We have exceeded the time. We couldn't complete on time."</i>		
Content Knowledge	Content	3	4	<i>"Questions from students could not be answered clearly."</i> <i>"I had a lack of content knowledge."</i> <i>"I had a hard time answering questions. I realized that my content knowledge was lacking."</i>			

*L1: Self-evaluation of the first lesson plan; L2: Self-evaluation of the second lesson plan

Pre-service science teachers stated that they were strong/effective in the engage, elaborate, and evaluate stages of 5E teaching model, but they were weak in the explain and explore stages. In the teaching process, they stated that the activities they planned and implemented were the strengths of their lesson plans, while they stated that they were weak in making students active, time management, special needs, and the self-content knowledge.

Discussion, Conclusion and Recommendations

Teachers perform better as increasing their experience in lesson planning and implementation. However, managing this process with teacher evaluation and self-evaluation creates a strong supervision mechanism. It is important for the educators to evaluate the problematic areas made by the PSTs better and fairly evaluate the 5E lesson plans prepared by them and to provide feedback on these areas. The 5E ILPv2 (Goldston et. al., 2013), which serves this purpose, was adapted to Turkish in the research process, and PSTs' experiences were investigated throughout teacher evaluation and self-evaluation.

According to the teacher evaluations at the end of the implementation process, it was determined that PSTs showed improvement in the preparation and implementation of the 5E lesson plan based on inquiry. When analyzed the lesson plan stages, it was determined that the average score from each section was higher in the second plan except for the lesson plan features section. The average of the preparation part has not changed in both the first and second lesson plans because the PSTs have not finished off this part completely. It was interpreted that PSTs did not have any problem in finding out some standard information such as the subject selected in this section is suitable for the program, writing the acquisitions, and specifying the materials to be used are requested.

It was determined that the PSTs' scores from each stage of the 5E model were higher in the second plan. The engage stage was the section in which the average scores increased the most compared to the other four stages. This stage was followed by the stages of evaluate, explain, elaborate, explore, and additional course components, respectively. Increasing experience of PSTs in preparing and implementing lesson plans has enabled them to perform better on these issues. Interviews with PSTs also supported these results. Researchers such as Özdem-Yılmaz and Cavas (2016), Namdar et al. (2017), Goldston et al. (2013) drew attention to the importance of increasing the experiences. However, it has to be considered that increasing experience is not the only factor in this change because using a rubric both during the preparation and implementation phases, monitoring their friends' practices, giving feedback by the researchers, peer evaluation with in-class discussions, and self-evaluation also affected the whole process. Namdar and Küçük (2018) stated that the discussions made after the activity increased the interrogation tendencies of half of the PSTs in the lesson plan and the other half did not change. Similar results were found in this study.

Marshall et al. (2009) stated that rubrics to be used in evaluating the quantity and quality of inquiry-based teaching will guide educators and researchers who train teachers. However, while making this evaluation, it is very important how objective it is, independent of personal opinions. For this reason, a control mechanism has been established by comparing the researcher/teacher and PST evaluations by making the self-evaluation of the PSTs. When the relationship between PSTs' self-evaluations and researchers' evaluations was examined, it was observed that there was a statistically moderate relationship. In the study of Kumandaş and Kutlu (2013), it was determined that the PSTs gave themselves more points than the researchers. This situation was interpreted according to the criteria in scoring the presentation achievements, that PSTs made a higher evaluation than the researchers' evaluations. In this study, PSTs stated that they made their evaluations in parallel with the class discussions while transferring their experiences on self-evaluation during the semi-structured interviews. However, they stated that filling out self-evaluation gave them an opportunity to better plan their process, to re-evaluate and express themselves, and to increase their self-confidence. Ozogul et al. (2008) also stated that self-evaluation contributes to the development of critical thinking skills, and that PSTs take an active role in their own learning and increase their potential. In their study, they stated that self-evaluation helped PSTs to raise awareness about the evaluation process and scoring criteria and to better understand the teaching content.

The PSTs reflected the comments of peers and researchers after the implementation to their self-evaluations. In the discussions, peer evaluation approach has played an important role in raising PSTs more qualified and developing their competencies related to teaching profession. Some PSTs stated that classroom discussions and feedbacks given during the process were more effective than self-evaluation. Ozogul et al. (2008) reported that both self and peer evaluation helped PSTs better understand the evaluation rubric and eliminate major errors in lesson plans.

When the PSTs' evaluations about the strengths and weaknesses of the 5E lesson plan were examined, it was found that they did not indicate any strength or weakness about the lesson plan features, additional lesson components, and teaching process of the 5E model. It was observed that all the features indicated as weakness were expressed less in the second lesson plan. It can be said that the increase in the total score in the second lesson plans resulted from the completion of these weaknesses. However, it was observed that the explain phase of the 5E model was described as the weakest in both lesson plans. The PSTs who participated in the research of Enugu and Hokayem (2017) also stated that this stage is the most difficult to write and apply. The number of PSTs who described this stage as a strong aspect was the least expressed among all the strong direction qualifications. When the opinions of the PSTs were examined, it was determined that the reason for qualifying this stage as weak was due to the idea that they could not provide the student with a sufficiently active explanation environment. The PSTs' focusing on appropriate scientific explanations and to learn how to make students active in this stage can help eliminate this weakness (Enugu & Hokayem, 2017). In the rubric

evaluation, the explanation stage was also the stage where the most distant from the full score among all stages. Therefore, consistent results were obtained between the evaluation made with rubrics and the strong and weak direction relation directed in the self-evaluation.

The shortcomings specified for the engage stage are in line with the work of Metin and Özmen (2009). It was determined that there were issues such as not being able to ask appropriate questions, not doing enough studies to reveal prior knowledge, not being able to adequately do the discussion environment that leads to the discovery stage. Expressing this stage as a strong area in the lesson plan, PSTs stated that sufficient interest and motivation was effectively provided. The number of PSTs, which stated that their plans were strong in the process of interest/curiosity/attention, increased in the second plan.

The explore stage is the second most distant to the full score after the explain stage. The PSTs experienced misconceptions in the explore stage, with the lack of knowledge of the area they stated in the teaching process category and could not accurately reflect their problem situations. They also stated that they could not keep the student active enough. The number of PSTs who state the student's active status as a strong feature has not changed in either plan. However, while there was no weakness in effectiveness at this stage of the research activities, it was determined that they developed themselves in effectiveness from the first plan to the second plan and they reflected this on self-evaluation as a strength feature. However, Bayram (2015), Meyer et al. (2013), Namdar and Kucuk (2018) stated that PSTs had difficulty in finding interesting activities. Some of the pre-service were expressed hard to prepare activities for special needs students.

The elaborate phase has not been expressed as a weakness by the PSTs in general. They even stated that the most strength feature of the plans are this stage. On the contrary to the literature that not being able to associate the subject with daily life and not knowing exactly what to do at this stage (Metin, & Özmen, 2009), it was found that the activities were successfully designed in which the relationship with daily life was established and implemented appropriately by the PSTs.

In the evaluate stage, there were PSTs who thought that they faced problems such as not being clear and understandable, not being able to configure correctly. Besides that, there are some PSTs who qualified this stage as a stage that makes the student active and evaluated as fun and learned things correctly. In addition, there were some PSTs who stated that the lesson plan did not apply the SI aspects in the teaching process, did not emphasize it or planned it in the wrong place. It is thought that the PSTs' limited experience in inquiry-based teaching is caused by observing the teaching through lecturing and passing their education life without doing enough research (Saka et. al., 2018). The number of PSTs who consider themselves insufficient in time management is very low considering all the participants. However, the PSTs who stated that managing the time effectively was not determined. The subject of managing time was considered as an issue that was ignored by the PSTs.

The 5E teaching model is a suitable model for in-service and PSTs to develop not only inquiry-based teaching but also an understanding of how teaching process should be implemented. Research findings have shown that 5E lesson plan based on inquiry is effective in preparing and applying experience and showed that the self-evaluation after the implementation with the teacher evaluation had positive effects. The evaluation of PSTs' own plans and their peers' plans through rubrics enabled them to perform better (Ozogul et al., 2008). However, it should be remembered that the rubric helps to determine the quality of the different stages of the 5E lesson plan based on the inquiry, but that a single item or section cannot capture the flow, continuity, and the overall integrity of the lesson plan (Goldston, et. al., 2013). While there is no perfect measuring tool, and while all of them are subjective in some way, it should not be forgotten that the key aspects of the inquiry-based 5E model are always reflected by the 5E ILPv2 (Goldston, et. al., 2013). Self-evaluation may have implications such as identifying excessive errors in lesson plans, providing more constructive feedback, and helping avoid excessive positive feedback (Ozogul et al., 2008). Crawford (1999) stated that teachers' beliefs affect their teaching and learning environment designs (Namdar & Kucuk, 2018). For this reason, it is recommended that PSTs' beliefs and practices are taken into consideration, and similar environments that support their development should be prepared and focus on practices where they can demonstrate their performance. Using the 5E ILPv2 (with self-evaluation) and developing 5E lesson plan preparation and implementation processes are recommended for teachers, PSTs, and educators. The findings of this study are limited with the method applied, the scale used and the pre-service science teachers who participated in the study. To increase the generalizability of the results of the study, it is important to apply it in other samples and to discuss the results.

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Appendix **

Appendix 1. Turkish version of 5E Lesson Plan (5E ILPv2) rubric for inquiry-based teaching

Puanlama Kriterleri					
4 Çok iyi	Maddenin tüm unsurları zengin ayrıntılarla birlikte sunulmuş, tam, uygun ve doğrudur. Başka bir öğretmen bu planı değiştirmeden olduğu gibi kullanabilir.				
3 İyi	Madde unsurlarının çoğu zengin ayrıntılarla birlikte sunulmuş, tam, uygun ve doğrudur. Diğer öğretmenler küçük değişikliklerle planı (aşamayı) kullanabilir.				
2 Orta	Madde unsurlarının yaklaşık yarısı, bazı ayrıntılarla birlikte sunulmuş, eksiksiz, uygun ve doğrudur. Diğer öğretmenler değişiklikler yaparak planı (aşamayı) kullanabilir.				
1 Zayıf	Madde unsurlarının çok azı küçük detaylarla birlikte sunulmuş, tam, uygun ve doğrudur. Diğer öğretmenler dersi uygulamak amacıyla yeniden planlamalıdır.				
0 Uygun değil / Kabul edilemez	Maddenin temel unsurları mevcut değil. Açıklamalar uygun değil. Planda tutarlılık yok ve yazılı olarak kullanılamaz.				
Ders Planının Özellikleri					
0	1	2	3	4	Ders için seçilen kavramlar ve /veya beceriler MEB 2018 Fen Bilimleri Dersi programına uygundur.
0	1	2	3	4	Ders planı açık, uygun, ölçülebilir ve değerlendirilebilir kazanım/lar içerir.
0	1	2	3	4	Ders planında kullanılan araç/gereç/materyal listesi eksiksiz sunulmuştur.
Giriş Aşaması (Engage)					
0	1	2	3	4	Giriş aşaması öğrencilerin kazanıma yönelik önbilgilerini ortaya çıkarır.
0	1	2	3	4	Giriş aşaması öğrencinin öğrenmeye olan ilgi/motivasyonunu artırır.
0	1	2	3	4	Giriş aşaması öğrencilerin tartışmaları ve soru sormaları için fırsat/lar sunar.
0	1	2	3	4	Giriş aşaması öğrencileri keşfetme aşamasına hazırlar.
Keşfetme Aşaması (Explore)					
0	1	2	3	4	Keşfetme aşaması boyunca öğretmen yapılacaklar hakkında bilgi verir.
0	1	2	3	4	Keşfetme aşamasındaki öğrenme etkinlikleri el becerisine/düşünme gücüne dayalı etkinlikleri içerir.
0	1	2	3	4	Keşfetme aşamasında öğrenme etkinlik öğrenci merkezlidir (Mümkün olduğu ölçüde öğretmen soruları öğrencilerin fikirlerini harekete geçirir veya öğrencilerin yeni sorular üretmesini sağlar. Öğrenci araştırma-sorgulama süreci; öğrencilerin sorgulamalarını, nesnelere kullanmalarını (manipüle etmelerini), bilimsel süreç becerilerini (uygun olanları) ve soyut fikirlerini geliştirmeyi içerebilir. *Bazı bilimsel süreç becerilerinin olduğu listeye bakınız.
0	1	2	3	4	Keşfetme aşamasındaki sorgulama etkinlikleri, öğrencinin neler öğrendiği bilgisini sunar (biçimlendirici ve otantik değerlendirme aracıyla). *Bazı değerlendirme yöntemlerinin olduğu listeye bakınız.
Açıklama Aşaması (Explain)					
0	1	2	3	4	Keşfetme aşamasından açıklama aşamasına mantıklı bir geçiş vardır.
0	1	2	3	4	Açıklama aşaması kavram ve becerilerin geliştirilmesine öncülük yapacak öğretmen sorularını içerir (keşfetme etkinliklerini / veya keşfetme etkinlikleri boyunca toplanan verileri kullanarak).
0	1	2	3	4	Açıklama aşaması, kavram veya becerileri geliştirmek için öğretmen ve/veya öğrenciler tarafından etkileşimli tartışmayı kolaylaştırmak adına ilişki ve farklılığı ortaya çıkaran sorular içerir.
0	1	2	3	4	Açıklama aşaması, öğretilen kavram veya becerinin tam bir açıklamasını içerir.

0	1	2	3	4	Açıklama aşaması, kavram veya beceriyi açıklamak ve örneklendirmek için farklı yaklaşımlar içerir (Örneğin bu yaklaşımlar teknolojinin kullanımı, alan gezisi, gösteriler, işbirlikli grup tartışmaları, panel tartışmaları, davetli konuşmacı röportajı, video/yazılı/ses/bilgisayar programı materyalleri veya öğretmen açıklamalarının kullanımını içerebilir. Fakat bu yaklaşımlarla sınırlı değil).
0	1	2	3	4	Açıklama aşaması boyunca gerçekleştirilen tartışma veya etkinlikler, öğrencilerin kavram veya becerileri anlamasını değerlendirmek için öğretmene fırsat verir.
Derinleştirme Aşaması (Elaborate)					
0	1	2	3	4	Açıklama aşamasından derinleştirme aşamasına mantıklı bir geçiş vardır.
0	1	2	3	4	Derinleştirme etkinlikleri öğrencilere yeni edinilmiş kavram ve becerileri yeni alanlara uygulama fırsatı sağlar.
0	1	2	3	4	Derinleştirme etkinliklerinin öğrencilerin yeni kazandığı kavram veya becerileri ile günlük yaşam arasında bağlantı kurmalarını destekler.
Değerlendirme Aşaması (Evaluation)					
0	1	2	3	4	Ders planı farklı form/yaklaşımları içerebilen ders sonu (düzey belirleyici-değer biçme) değerlendirmeleri içerir. *Bazı değerlendirme yöntemlerinin olduğu listeye bakınız.
0	1	2	3	4	Değerlendirme etkinlikleri kazanımlara uygundur.
0	1	2	3	4	Değerlendirme kriterleri açık, anlaşılır ve uygundur.
0	1	2	3	4	Değerlendirme kriterleri ölçülebilir.
İlave Ders Planı Bileşenleri					
0	1	2	3	4	İlgili güvenlik konuları ele alınmaktadır. Uygun güvenlik ekipmanları tanımlanmıştır. Malzeme seçimi öğrenci seviyesine uygundur.
0	1	2	3	4	Ders planı aşamalarının her biri için belirlenen süre uygundur.
0	1	2	3	4	Özel ihtiyacı olan öğrencilerin durumu göz önünde bulundurulur. Ders boyunca çeşitli bilişsel seviyelere hitap edilir. Ders bütün öğrenciler için uygundur.
0	1	2	3	4	Ders planı bir kaynakça içerir. Alıntı yapılan eserler içerisinde web siteleri, ders kitapları, çocuk edebiyatı ve ilgili makaleler bulunmaktadır. Sadece çocuk edebiyatının kullanılması kabul edilmez. İçeriği doğrulama için birden fazla kaynak kullanılmalıdır.

* Bazı bilimsel süreç becerileri: tahmin etme, hipotez kurma, gözlem yapma, ölçme, deney yapma, verileri kaydetme, grafik çizme, tablolar oluşturma, sonuç çıkarma.

* Bazı değerlendirme yöntemleri: bilim günlükleri, bilim defterleri, fotoğraf anlatımları, Ne biliyorum? -Ne öğrenmek istiyorum? -Ne öğrendim? çizelgeleri, kavram haritaları, yazı ödevleri, sanat eseri, çizimler / çizelgeler, grafik çizme, kısa sınav, test, PowerPoint sunumu, film yapma, film izleme, çizgi filmler. Ders sırasında kullanılan değerlendirmeler biçimlendirici (formative) değerlendirme, eğer ders sonunda not verme amacıyla kullanılıyorsa düzey belirleyici (değer biçme) değerlendirilmez.

* İçerikte kullanılacak örnek uygulamalar: teknoloji kullanımı, internet gezileri, alan gezileri, el becerisine/düşünme gücüne dayalı öğrenme etkinlikleri, işbirlikli grup tartışmaları, panel tartışmaları, konuk konuşmacı mülakatı, video / baskı / ses / bilgisayar programı materyalleri, öğretmen açıklamaları, online testler, film yapma, PowerPoint.