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The Effects of Psychoeducation Program for Decreasing Social Appearance Anxiety on Social Appearance Anxiety Levels of High School Students^{*}

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Çanakkale Onsekiz Mart University

Abstract

The purpose of this study is to examine the effect of psychoeducation program, prepared for decreasing social appearance anxiety of high school students, on social appearance anxiety level of adolescents. In this study, an experimental model with pretest-posttest measurement and control group was used. The independent variable of the study was the psychoeducation program was applied only on experimental group between pretest and posttest. On the other hand, the dependent variable was the social appearance anxiety levels of the adolescents. The population of the study consisted of 300 high school students, whereas the sample of the study consisted of 40 students including 20 in the experimental group and 20 in the control group, all of whom received the high scores from the social appearance scale. In the study The data concerning the dependent variable were obtained by using "Social Appearance Anxiety Scale". A seven-session psychoeducation program for decreasing the social appearance anxiety of the students was prepared and carried out for the experimental application. The program to be applied on the experimental group was structured on the principles of Cognitive Behaviorist Approach and the basis of Social Skills Training. The hypotheses of the study were tested through the nonparametric statistical tests. While Mann Whitney U test was used for the unrelated measurements, Wilcoxon Signed Rank Test was used for related samples. As a result of the results of the study, it was found that the applied Psychoeducation Program for Decreasing the Social Appearance Anxiety decreased the social appearance anxiety levels of the students included in the experimental group.

Keywords: Social Appearance Anxiety, Psychoeducation Program, High School Student.

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Introduction

Anxiety is a mood and the most basic emotions in the world (Morgan, 1977). Anxiety is an unspoken fear (Özer, 2002). Anxiety is given to a state of alertness that manifests itself with physical, emotional and mental changes that one has experienced when encountering a stimulus (Baltas and Baltas 2005). The concept of anxiety was first described by Freud, the founder of psychoanalysis, as a state of perception of the danger (Freud, 1984). Social anxiety is the constant concern that people are perceived as negative by others and leave a negative impression on them (Clarke and Wells, 1995). The common features of social anxiety disorder are socially weak or incompetent, fear of interaction, hypersensitivity to criticism, fear of negative evaluation or rejection, lack of assertiveness, fear of trial or examination by others, low self-esteem. (Villiers, 2009). Most social anxieties have negative beliefs about their value and importance as in depression (Cash and Fleming, 2002). Anxiety about social appearance, identified as a type of social language, is expressed as "anxiety and tension with which people's external appearances are assessed by other people" (Hart, Leary and Rejeski, 1989). In another definition, social anxiety is defined as the feeling that individuals' physical appearances are evaluated by other individuals (Doğan, 2010). Park (2007) defines someone as overreacting to appearance-based rejection signals and anxiously waiting. Hart et al. (2008) define this anxiety as a comprehensive concept that includes more general and holistic body sensations and features of body image, beyond the physical appearance-induced loss.

Individuals struggle to make a more effective impression on others and to look attractive. Most people want to communicate more with attractive individuals (Özcan et al., 2013). Individuals have to live with other people from the time they are born. They have the desire to communicate and communicate with all the circles from the closest to the most distant while continuing their lives. They are interested in what kind of impression they have on other people in this relationship and communication process. They try to raise their body image to be appreciated, to give a positive impression on others, and they are interested in more than their physical appearance. They want to be liked by transforming their external appearance like hair color, shape, weight, clothing, make-up, and make-up. The concern about social appearance is directly related to how the individual perceives the body, that is, the body image perception. The body image has an influence on the eating behavior, social anxiety, sexual behavior, social relations and emotional states of the individual as well as self-respect (Cash and Fleming, 2002). Positive body sensation with high self esteem; Whereas negative body image is associated with low self-esteem. There is a linear relationship between social anxiety and self esteem (Tezcan, 2009). The feelings and thoughts about the physical appearance of the body are positive or negative, but the body sensation is a significant influence that affects self-esteem. Anxiety about social appearance can be regarded as a result of the negative body image related to the individual's body and appearance (Özcan et al., 2013).

Social anxiety and body image is a dynamic concept that begins to develop in infancy, especially in the adolescence period, and involves the subjective perception of the individual who develops and changes throughout life (Anbar, 2013, Babacan Gümüş and Çam, 2011). The development and continual change of body image depends on factors other than physical development. These are determined by many factors besides physical development. These factors include gender, level of learning and maturity, self-efficacy, motivations, motivation, sense of confidence, sensitivity towards the body, the meaning it gives, and the value it gives to the body's body view (Ergür, 1996). During puberty, which includes high school years, body image becomes more important. Adolescence is a critical event for the formation of body image. In this period, the appearance of interest in girls and boys appears to be excessive. Rapid changes in this period can affect the positive image of the adult body. Individuals who perceive themselves positively from a physical point of view are successful in their work, school, and safe in their relationships. Individuals with negative physical sensations experience occasional or persistent feelings of unease, insecurity and worthlessness, eating disorders, depression, antisocial behavior, negative sexual behavior, and social phobia (Özcan et al., 2013, Seki ev Dilmaç, 2015). Apart from how they perceive themselves, it is also important how others perceive them. People want to be perceived positively by others, and this causes concern in individuals. (Sword,

2015). Adolescents with anxiety about appearance may react easily to signs of rejection based on personal appearance and may overreact (Park, 2007). In modern life, the social effects of media, family, peers forming the appearance culture are the perceptual influences on the body image (Bowker, Thomas, Spencer, and Park 2013; Shroff and Thompson, 2006).

Made in the summer of the country in our country in the search for the summer; In most of the scientific studies reached, the concept of social anxiety is discussed and compared with some other emotions and concepts. The majority of these researches are descriptive research type studies (Alemdağ, 2013, Gül, 2016, Işıkol Özge, 2013, Kılıç, 2015, Özcan, 2013, Yüceant, 2013).

Purpose of the Research

The overall aim of this research is to examine the effect of the psycho-education program designed to reduce the social appearance anxiety of high school students on the social appearance anxiety levels of the students. In the study, the following tests were tested for this general purpose.

Assertion 1. Reducing Social Appearance Anxiety The Psycho-Educational Program students who are in the experimental group are significantly lower than the average pre-test scores in the Social Appearance Anxiety Scale post-test averages.

Assertion 2. There is no significant difference between pre-test averages and post-test averages in the Social Appearance Anxiety Scale of the students in the control group 2

Assertion 3. Reducing the Social Appearance Reduction The average of the final test scores of the Social Appearance Anxiety Inventory for students in the experimental group participating in the Psychoeducational Program is significantly lower than the final test score average for the control group not participating in this program.

Method

Research Model

In this research, experimental model which can be shown as 2x2 with pre-test, post-test, measurement and control group which is frequently used in social sciences is used. In this model, the first factor; Experimental treatment groups (experiment-control), the second factor; (Pretest-posttest) for dependent variables (Büyüköztürk et al., 2009). The aim of this research is to examine the effect of the psycho-education program designed to reduce social anxiety on students' social anxiety levels. Independent variable of the research; Between the pre-test and post-test is only a psycho-education program applied to the experimental group. The dependent variable is; The social appearance of high school students.

Research Group

The young people who fall under the scope of the research; There are two general, two Anatolian and two vocational high schools in Kayseri with 300 students studying in six high schools. The working group is; It consists of a total of 40 high school students participating voluntarily in the study, 20 in the experimental group and 20 in the control group, who have a high score from the Social Appearance Anxiety Scale.

When working group is being established; There were separate announcements in the high school, explanations about the work were made, and preliminary talks were held with volunteer students who wanted to participate in the work. The scale was applied to the students by giving detailed information about the content and duration of the program and what to do. Forty students with

high scores in the scale were assigned to experimental and control groups by unbiased assignment (experimental group, 10 female, 10 male, control group, 10 female, 10 male). In the experimental group, 1 female and 2 male students stopped working. During the analyzes, 3 randomly selected control subjects were removed from the control group in order to provide numerical equality. Information on the students in the study group is given in Table 1.

Table 1. Demographic Information of Individuals by Groups

Demographic Characteristics		Study		Control		Total	
		n	%	n	%	n	%
Gender	Female	9	24.47	8	23.52	17	50
	Male	8	23.52	9	24.47	17	50
Age Group	14-15	9	26.47	10	29.41	19	55.88
	16-17	5	14.70	4	11.76	9	26.47
	18-19	2	5.88	2	5.88	4	11.76
	20+	1	2.94	1	2.94	2	5.88
Education Level	Higschool 1. Grade	11	32.35	10	29.41	21	61.76
	Higschool 2. Grade	6	17.64	7	20.58	13	38.24
Total		17	50	17	50	34	100

34 students participated in the research. The experiment group consisted of 9 women (24.47%) and 17 (23.52%) men; The control group consisted of 8 women (23.52%) and 9 women (24.47%). When the distribution of the students according to the age groups is examined, it is seen that the students participating in psycho-education are mostly in the age group of 14-15 (55.88%). When the class levels of the students are examined; 21 students are in high school 1 (61.76%) and 13 students are in high school 2. (38.24%).

Data Collection Tools

In this study, "Personal Information Form" and "SSI, Social Appearance Anxiety Scale" were used to collect data.

Personal Information Form: Information on the demographic characteristics (sex, age, class) of the students who participated in the research studying in the "Personal Information Form" were collected.

Social Appearance Anxiety Scale: This scale was developed by Hart et al. (2008) to measure the social appearance anxieties experienced by individuals due to their physical appearance. The adaptation of your scale to Turkish culture was done by Doğan (2010). The scale is a measure of 16 items, one-dimensional and 5-point Likert type, self-report style. The scale items are scored as (1) No Suitable, (2) Not Suitable, (3) Somewhat Eligible, (4) Eligible, (5) Completely Eligible. The first element of the scale is encoded in teren. The higher the score of "SSI", the higher the anxiety of appearance. The Cronbach alpha internal consistency reliability coefficient of the scale was .93, the test re-test reliability coefficient was .85, and the reliability coefficient calculated by the test splitting method was .88, and the similar scale validity coefficient was .60. The scale was re-examined in a

sample of 600 high school students studying in Konya. Confirmatory factor analysis consisted of confirmatory factor analysis on the data obtained from the study: $\chi^2 / sd = 2.949$, RMSEA = .057, AGFI = .918, CFI = .969, GFI = .951, IFI = .969, NFI = .932 and SRMR = .0386 respectively. The factor loadings of the scale are listed between .27 and .87 (Ekşi, Arıcan, and Yaman, 2016). Doğan (2011) re-examined the psychometric properties of SSI in a sample of 453 adolescents and found a Cronbach alpha internal consistency coefficient of .91 and a test retest reliability coefficient of .80.

Psycho-Education Program

The psycho-education program "Reducing Social Appearance Anxiety" was applied to the experimental group, and no treatment was applied to the control group. The psycho-education program prepared is a group intervention with "psycho-educational" content (Brown, 2013). Psycho-education is used for educational and preventive or healing and development purposes. Psycho-educational group; Instructors and programmers use structured and structured activities; the goals set by members in the group psychological counselor are determined by the leader, focused on prevention, self-disclosure is accepted but not promoted, tasks are emphasized (Brown, 2013). Brown's (2013) Guidelines for the Preparation and Implementation of Psycho-Educational Groups for Psychological Counselors were based on the formal structuring of the psycho-education program. Psycho-educational purpose; A range of educational and psychological distresses. In this study, reducing social anxiety is the main objective. The program to be applied to the experimental group is structured on the basis of Cognitive Behavioral Therapy principles. In order to reduce social anxiety, which are predictors of self-esteem, positive self-esteem, self-esteem, self-acceptance, body image, effective communication, social activity and sports dimensions (Alemdağ, 2013, Daniel, 2009; Hart et al., 2008; Özcan et al., 2013; Sabiston, Sedgwick Crocker, Kowalski, and Mack, 2007, Şahin, Barut, Erşanlı and Kumcağız, 2014) to develop skills.

In order to realize the purpose of the research, the following tasks were carried out while preparing the content of the psycho-educational program for reducing the social anxiety of the view: The students were interviewed, their situation, general desires and anticipations were determined, a wide range of anxiety- Have been taken into account and utilized. Sessions were organized taking into account the predictors of the anxious, information was presented on these topics and cognitive changes were tried to be created. The sessions and activities of the seven-session training program are planned as follows:

SESSION 1: Beginning; Meeting -Fan

SESSION 2: Recognition; Self-Recognition - Anxiety Recognition

SESSION 3: Ability to cope with anxiety; Self-Acceptance - Positive Perception of Self

SESSION 4: Ability to cope with anxiety; Body Image: Changing Negative Social Components

SESSION 5: Ability to cope with anxiety; Communication skills

SESSION 6: Ability to deal with anxiety; Social Activities - Hobbies - Sports

SESSION 7: Termination; Time to say goodbye

Collection and Analysis of Data

Experimental and control groups were formed from students who got high scores from SGKÖ during the collection of data. Voluntary individuals were distributed to experimental and control groups by means of unselected assignments. After the experiment and control groups were established,

the psycho-education program "Reducing Social Appearance Anxiety" was applied to the experimental group, and no action was taken for the control group. The scales applied as a pre-test after the procedure for the experiment group were re-applied to the experimental and control groups and it was examined whether there was a significant difference between the pre-test and post-test of the experimental group and between the post-tests of the groups.

Since the research is an experimental experiment with few subjects and the data of the study is not normally distributed, all experiments were tested with nonparametric statistical tests in this study. The Mann Whitney U test was used for unrelated measures and the Wilcoxon Marked Rank Test was used for related samples. (Büyüköztürk, Çokluk and Köklü, 2013).

Findings

The statistical analyzes made to determine the effect of the psycho-education program to reduce the social appearance anxiety on the social appearance anxiety of the students are presented with the sequence of findings and interpretations obtained as a result.

Table 2 presents descriptive statistics on the scores of the individuals in the experimental and control groups from SSI.

Table 2. Descriptive Statistics of Experimental and Control Group SSI Points Received

Group	Pre Test		Last Test	
	\bar{X}	s	\bar{X}	s
Study (n=17)	72.24	0.63	30.14	0.46
Control (n=17)	74.10	0.65	70.16	0.58

As seen in Table 2, the average pre-test scores of the students who participated in the Psycho-Educational Program for Reducing Social Appearance Anxiety were 72.24, which was 30.14 after the test. When the average scores of non-trained students are examined, pre-test scores are 74.10 and this value is 70.16 in the final test.

At the beginning of the experimental treatment groups, there was no significant difference in terms of the examined variable. In another expression, comparison of pre-test results of experiment and control groups was performed. Mann Whitney U Test was used to determine the significance of the difference between the groups when the number of persons in the groups and the scores of the persons who were not normally distributed ($p < .05$) were taken into account. The results are presented in Table 3.

Table 3. Mann Whitney U-Test Results of the SSI on the Test and Control Group Preliminary Test Scores

Group	n	Ranking Average	Ranking Average	u	p
Study	17	34.26	594.50	280.50	0.89
Control	17	34.74	602.50		

As shown in Table 3, there is no significant difference between the scores of the students in the experimental and control groups. This indicates that the anxiety scores of the experimental group and the control group can be regarded as statistically equal ($U = 280.50$, $p > 0.05$). Assertion 1. Reducing Social Appearance Anxiety the Psycho-Educational Program students who are in the experimental group are significantly lower than the average pre-test scores in the Social Appearance Anxiety Scale post-test averages.

The results of the Wilcoxon Signed Ranks Test for testing assertion 1 are presented in Table 4.

Table 4. Wilcoxon Marked Ranks Test Results on Final Test - Pre-Test Scores of the Experiment Group

Last - First	n	Average Ranking	Average Ranking	z	p
Negative Ranking	17	10	164.00	-2.98*	0.00
Positive Ranking	0	0	0		
Equal	0				

* Based on negative sequence

According to Table 4, there is a meaningful difference between the pre-test and post-test scores of the experimental group ($z = -2.98$, $p < .001$). It can be stated that the difference is in favor of pre-test scores of the experimental group. Thus, in this case, it can be said that acceptance 1 is considered and the finding of the social appearance anxieties of the educated students is obtained.

There is no significant difference between pre-test averages and post-test averages in the Social Screening Anxiety Scale of the students in the control group.

The results of the Wilcoxon Signed Ranks Test for testing assertion 2 are presented in Table 5.

Table 5: Wilcoxon Marked Rank Test Results of Control Group Pre-Test-Final Test Scores

Last Test First Test	n	Average Ranking	Average Ranking	z	p
Negative Ranking	8	4.96	41.00	-0.63	0.47
Positive Ranking	4	7.52	25.00		
Equal	5				

There is no significant difference between pre-test and post-test scores of control group according to Table 5 ($z = -0.63$, $p > 0.05$). Thus, in this case the assertion 2 is accepted. The finding suggests that there is no statistically significant difference between the pre-test and the post-test in the control group in terms of appearance anxiety.

Assertion 3. Reducing the Social Appearance Reduction The average of the final test scores of the Social Appearance Anxiety Inventory for students in the experimental group participating in the Psychoeducational Program is significantly lower than the final test score average for the control group not participating in this program. The results of the Mann Whitney U Test for testing assertion 3 are presented in Table 6.

Table 6: Final Test of the Experiment Group - Mann Whitney U Test Results of Control Group Final Test Scores

Group	n	Average Ranking	Average Ranking	u	p
Study	17	10	163.00	0	0.00
Control	17	27	462.00		

According to Table 6, there is a significant difference between the post test scores of the test group ($U = 0$, $p < .001$). Taking into consideration the average order, it is seen that the students who participated in the training felt less social anxiety than those who did not participate in the education. So in this case try 3 is accepted. Accordingly, it can be stated that the psycho-education students in the research decreased their social appearance anxiety.

Discussion and Conclusion

As a result of the research, it was determined that the students who participated in psycho-educational program for reducing the social appearance anxiety had a significant decrease in anxiety points according to those who did not participate in this program. This result is a result supporting the purpose of the research.

Fables, pop songs and poems were added to make it more attractive and fun. To get information about it, this information was supported by mini-exercises and events. It has been observed that exercise, activities and games are enjoying students and increasing their psycho-educational participation. Işıkol Özge (2013), primary education II. Examined the relationship between the social appearance anxieties and self esteem of the grade students. It was found that age, class, gender, socioeconomic level, father education level, number of siblings, siblings, school type, brand dressing, time spent on the internet and musical instrument playing variables did not show any significant difference with respect to social appearance anxiety. However, they found that the level of education of the mother was low, that they were afraid of gaining weight, not doing sports, and that the low academic achievement increased the social appearance anxiety in the students. Applied psycho-education program students were informed on these issues.

First degree of the research: The research hypothesis is that the first "Social Anxiety Reduction Appearance Psycho-Education System", "Social Media", "Social Media", "Social Media"; The second hypothesis is that the research "Social Anxiety Scale Apparently there is no significant difference between test scores with his son preliminary test scores"; Research the third hypothesis "Reducing the Social Appearance Anxiety psycho-educational experiment groups participating in the Program Social Appearance Anxiety Scale students last test scores, this is the program to participate in the control group was significantly lower their son test score average" showed that of the form is expressed hypotheses confirmed. All the experiments in the investigation have been confirmed. Reducing Prepared Social Appearance Anxiety Psycho-education program has been found to have an effective program to reduce anxiety and cope with anxiety.

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Effectiveness of Discrete Trial Training Program for Parents of Children with Autism Spectrum Disorder

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Abstract

Discrete Trial Training (DTT) is one of many scientific based practices used in the education of children with ASD. It is seen that many evidence based practices are limited to the studies conducted by universities and cannot become widespread. Involvement of parents in their children's education processes and utilization of evidence based practices play a very important role in overcoming the problems and achieving the desired results in children with ASD. In this study, the effectiveness of a group of family training programme, which has been developed to upskill parents to present DTT, was investigated on 14 mothers and 14 fathers. The result shows that there is a significant difference between experiment and control groups' DTT scores. On the other hand there is no significant difference between mothers and fathers' DTT performance in experiment group. Also children whose parents in experiment group improved imitation skills during the study. The parent training program has been found effective on teaching parents how to use DTT. All the parents indicated their satisfactions about the program and they also suggested the program to the other parents.

Keywords: Autism spectrum disorder, parent training, discrete trial training, father, mother, evidence based practice

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Introduction

Nowadays, autism spectrum disorder (ASD) is one of the most overemphasized, mentioned and studied disabilities. According to the official figures of the United States, it is the second largest developmental disability class coming after intellectual disability and its prevalence has been increasing expeditiously (Center for Disease Control and Prevention, 2012). Although it has many different definitions, considering common points of these definitions, ASD is defined as a developmental disability characterized by limitations in social and communicational skills, limited interest and repetitive movements (APA, 2012; Heflin and Alaimo, 2007;; Lord and McGee, 2001; World Health Organization, 2008).

Children with ASD have disabilities in many areas such as social skills, language and speech, play skills, academic skills and many others when compared to their peers. These children exhibit low performance in the school and various social environments when compared to their peers depending on the prevalence of autism symptoms. Children with ASD are required to receive early intervention services regularly and systematically to reduce their disabilities (Cowan & Allen, 2007). There is a serious confusion in the field of interventions and therapies which will be used to reduce the disabilities of the children with ASD. It is important that the interventions, which will be used to teach children with ASD the skills they need, are evidence based practices (Simpson, 2005). Discrete trial training (DTT) is one of the interventions included in all classifications of evidence based practices (Wilczynski & Pollack, 2009; NRC, 2001; Wong et al., 2015) performed by different institutions and organizations, and recommended to be used while working with children with ASD. This method is used in teaching children with ASD various social, language and academic skills (Sturmey & Fitzer, 2007). Although there are some studies in which providing the DTT is taught to teachers, semi-professionals, specialists, undergraduate students and parents, it is seen that the studies involving parents are limited in number. Mostly mothers were involved in the studies in which providing the DTT was taught (Thomson, Martin, Arnal, Fazzio & Yu, 2010). In addition, it was evident in these studies that the numbers of participants were limited, generally single subject researches were conducted as research method, intervention reliability was not calculated mostly (Meadan, Ostrosky, Zaghlawan and Yu, 2009; Thomson et al., 2010) and the numbers of experimental group studies were limited (Anan, Warner, McGillivray, Chong & Hines, 2008).

Evidence based practices such as the DTT are mostly limited to university based clinical interventions and ensuring dissemination of these interventions to many families via community-based models is difficult and expensive (Minjarez, Williams, Mercier & Hardan, 2011). It is impossible or delayed for many children to access evidence based training practices such as the DTT at a recommended age due to long waiting lists (Majnemer, Shevell, Rosenbaum & Abrahamowicz, 2002). Considering that weekly 25-40 hours of training is mentioned for children with ASD in the literature (Love et al., 2009; McEachin, et al., 1993), significant gap between the present situation and recommended situation draws attention. It is seen that parents who are trying to improve the situation are in struggle for increasing weekly training hours of children with ASD by using their own financial resources (Elder et al., 2011). When the families of children with ASD actively participate in their children's training processes, it can be considered that their participation contributes to increasing their children's weekly training hours and decreasing the gap between the ideal weekly training hours and present situation (Elder et al., 2011). Most of the training programs developed for children with ASD are costly and do not include the families, a key component of early intervention of children with ASD, in the intervention sufficiently (NRC, 2001). Participation of the family in the child's training program and their active roles in the process are very important in many aspects and contribute to child's development (Crockett, Fleming, Doepke & Stevens, 2007; Lafasakis & Sturmey, 2007). One of the most important ways of including the families in training programs is to ensure that they recognize and partly practice the program in which their children are involved (Meadan et. al., 2009). Many behavioral interventions focus on family training as an aspect of expanded service range (Koegel, Bimbello & Schreibman, 1996; NRC, 2001). Family training programs generally aim to teach families strategies to be used in natural environment (Minjarez et al., 2011). Providing training to

families via evidence based practices is seen as an effective method of providing service to children with ASD. The other advantages of family training are permanence and contribution to generalization as well as increasing self-sufficiency of families (Bryson et al., 2007). It is known that parents of children with ASD practice with their children in many issues such as “parent-child interaction”, “increasing communication skills” and “reducing problematic behaviors” and obtain good results (Ingersoll & Dvortcsak, 2006). It is also known that training programs for parents of children with ASD have effects as increasing skill levels, ensuring self-confidence and reducing stress level of children and families (McConachie & Diggle, 2007). It is stated that group training given to families has reciprocal advantages (Symon, 2001). Moreover, it is known that effectiveness and productivity interventions that are intended for participation of families provide positive results with regard to developmental progress of children, the interaction way of parent-child, knowledge level of parents, attitudes and stress levels of parents, and relevant cost (McConachie & Diggle, 2007). Studies conducted for the families of children with ASD show that participation of fathers in these studies is very limited and trained family members are mostly mothers (Chiang, 2014; Meadan et al., 2009; Thomson et al., 2010). In addition, clinical experiences reveal that in the event that both parents are trained simultaneously, mothers play the leading role in interventions while fathers remain in the background or do not attend regularly and give participation priority to mothers (Elder et al., 2011). Although family training programs are accepted as one of the main components of successful education and training programs ensuring participation of parents in their children’s education processes, (NRC, 2001), it is stated that the number of evidence based family training programs developed for the families of children with ASD is insufficient (Ingersoll & Dvortcsak, 2006). Family training programs developed for children with ASD generally have intensive contents. This is a serious problem due to long waiting lists. For this reason, family training programs which may be completed in a shorter time may provide more positive results for children and families (Coolican, Smith & Bryson, 2010). Considering the requirements related to present situation, it is obvious that more effective group family training models are needed (Minjarez, et al., 2011; Shultz, Schmidt & Stichter, 2011).

This study, which was designed in accordance with the requirements indicated in the literature, was developed for teaching families of children with ASD using the DTT method, which was one of strong methods whose scientific strength was proven in the field of ASD, and aimed to test the effectiveness of a group of family training program. Moreover, the prepared program aimed to teach parents the strategies necessary to be able to use the DTT method with sufficient reliability during interventions in which parents would teach their children various skills. It was investigated in this study whether there was a change in receptive language and imitation skills of the children of participant families.

Method

Participants

14 children with ASD and their parents (14 mothers and 14 fathers) participated in the study. Participation criteria for the parents were as follows; (a) the age of children of the participant parents must be under 8 years, (b) children of the participant parents must be diagnosed with autism spectrum disorder, (c) both mother and father must agree to participate in the study, (d) parents to be included in the study must be volunteers and (e) parents must attend all sessions of the study. Table 1 shows the information about the families participated in the study. 14 children with ASD of participant parents were also included in the study. GARS 2 TV scores of the children participated in the study were calculated. Table 2 shows the information about the children participated in the study.

Measures

Providing DTT behaviors of families: One of the dependent variables of the study was to provide DTT behaviors of parents. Discrete Trial Training Evaluation Form [DTTEF] developed by Fazzio, Arnal and Martin (2007) was used to evaluate providing DTT behaviors of parents. Validity and reliability studies of DTTEF were performed by Babel, Martin, Fazzio, Arnal and Thomson (2008) while Jeanson, Thiessen, Thomson, Vermeulen, Martin and Yu (2010) conducted field testing. This form is composed of five categories including pre-teaching, managing antecedents, managing consequences, time between trials and fading, and it contains 21 items. DTTEF scoring manual developed and revised by Fazzio and Martin (2010) was utilized with regard to use of the form. Relevant evaluation scale was used in pre-training, post-training and follow-up sessions with the families participated in the study.

Children's receptive language levels: Besides the data obtained from the families in the study, Turkish version of Test of Early Language Development (TELD-3) (Güven & Topbaş, 2014) was used to measure the receptive language performances of the children of participant families. This is a self-managed, norm-referenced test that aims to measure receptive and expressive verbal language skills of children aged between 2 years 0 month and 7 years 11 months (Hresko et al., 1999). Test results may be used for various purposes such as diagnosing the children with early language disorders, showing weak and strong aspects of language development, giving information about developmental process and performing investigation. TELD is composed of two parallel forms which are Form A and Form B. Each form includes two subtests so as to be Receptive and Expressive. These subtests are composed of items measuring semantics, morphology and syntax of the language. Each form contains 76 items in total. Receptive Language subtest of Form A used in the study has 24 items for measuring semantics and 13 items for measuring syntax/morphology while Expressive Language subtest has 22 semantics items and 17 syntax/morphology items. The scale was used with participant children to determine their pre-training and post-training receptive language performances.

Imitation skills levels of Children: Imitation Skills Assessment Tool (ISAT) was used in control and experimental groups to measure the imitation skill levels (another dependent variable of the study) of the children with ASD. ISAT was developed by the authors of the study via performing content validity study with nine field experts. In the development of ISAT, items of the scale were determined by analyzing the tools developed to assess the imitation skills of the children with ASD. ISAT is composed of three groups: imitation of actions with objects, imitation of actions without objects imitation and gesture/mimic imitation. Imitation of actions with objects is divided into two parts as imitation of meaningful actions and imitation of meaningless actions. In the tool, the numbers of items were eight in imitation of actions with objects, seven in imitation of actions without objects and six in gesture/mimic imitation, giving a total number of 21. In the instructions for use of the tool, how to use and assess the tool was explained in detail. Every item can be scored as 0 (not done), 1 (partly done) or 2 (done) scores. Maximum total score that can be gained from the tool is 42 while minimum score is zero. Points between the range of 0 and 12 show severe imitation deficiency, 12-24 scores show moderate imitation deficiency and 24-36 scores show mild imitation deficiency while scores 36 and above indicate normal imitation skills.

Procedure

Training Program on Providing Discrete Trial Training (TPPDTT) was developed by analyzing similar programs and their components which was mentioned in the relevant literature and taught providing DTT behaviors to various interventionists. Family training program was composed of eight sessions and families attended two sessions in a week. Each session lasted for approximately 120 minutes. Lectures, written and visual materials, video samples, video assessments, feedback via video, role activities and assessment techniques were used in the program in order to teach parents DTT behavior. The first four sessions of the program were composed of autism spectrum disorder, clues, reinforcement, and pre-training preparation and sessions. The first four sessions mainly aimed to teach

families basic information. In the sessions performed accordingly, lectures given to families via computers, weekly written materials enriched by visual materials, and video samples were utilized. Families were allowed to ask questions at any time during these sessions. In addition, families had a short written exam after finishing each session and subjects of the questions with wrong answers were discussed again in the next lecture. In the fifth session, DTT was introduced to families and intervention examples were shown. The sixth, seventh and eighth sessions were all performed practically. These sessions initiated examining interventions performed in the previous session and analyzing with the families. Then, families watched intervention videos which had been specially prepared. Firstly, families watched good intervention models. After that, intervention videos were presented to families and they were requested to tick true and false behaviors in the video content on the form they were given. After families analyzed the videos they watched, these videos were watched again and discussed together. In the last four sessions, interventions and videos being watched in the previous week were analyzed, and then one-to-one applications were performed with the families. Families played the role of student and teacher in the interventions performed in an intervention via one to one training with families. In the interventions performed by families, simultaneous feedbacks were given by the expert, thus enabled families to correct their mistakes related to the DTT method. After families completed the study, an interactive CD prepared by the researchers and including all family training sessions was given to families for making use of and maintaining the skills they learned.

Reliability

In the study, inter-observer reliability and intervention reliability data were collected. Inter-observer reliability data of the study was collected for assessment sessions conducted for providing DTT behaviors of mothers and children's imitation skills. 30% of the assessments conducted for performance measurements of providing DTT performances of families and children's imitation skills were determined by random assignment. A second expert with master's degree in the field of special education watched and re-coded videos of determined assessment sessions. In inter-observer reliability calculation, i.e. in IOR calculation, formula of $[\text{Agreement} / (\text{Agreement} + \text{disagreement})] * 100$ was used.

Intervention reliability was calculated in order to evaluate whether each component of family training program, which was one of the independent variables of the study, had been performed as planned. It was also calculated by means of assessing 30% of all training sessions by a second field expert who was a postgraduate student in the field of special education. Different intervention reliability form was developed for each training session. Expected number of good intervention behaviors was different in each session. This was because the content, subjects addressed in the content and strategies were different in each intervention session. In the calculation of intervention reliability; the formula of $(\text{observed good interventionist behavior} / \text{good interventionist behavior required to be observed}) * 100$ was utilized.

Statistical Analysis

A pre- and post-treatment design was used for this study. DTTEF, TELD and ISAF were administered to parents or children with ASD before and after receiving the program. In order to answer the research questions concerning the study, parametric tests such as ANOVA and Man Whitney U tests and non-parametric tests such as Friedman and Wilcoxon tests were made use of. In all the analyses, significance level was determined as .05. In addition, effect size (η^2) value was used in all analyses to determine the effect size of independent variable on dependent variable. Effect size, which is also called as eta squared, shows to what degree independent variable or factor explains the total variance of dependent variable, and it ranges between 0.00 and 1.00. Eta squared (η^2) values between .01 and .06 means small effect size, values .06 and above mean medium, and values .14 and above mean large effect size (Büyüköztürk, 2011, p. 45; Cohen, 1988).

Results

The effect of TPPDIT on providing DTT behaviors of parents

Table 3 shows findings related to t-test results for independent samples performed by post-test scores of participants in experimental and control groups gained from DTTEF. Analyzing post-test scores of the participants in experimental and control groups gained from the DTTEF, it was seen that there was a significant difference between the averages of post-test scores ($\text{sig}=0$) and this difference had a large effect size ($\eta^2=.991$).

The relationship between pre-test, post-test and follow-up results of the participants to whom TPPDIT was administered

As a result of single factor ANOVA for repeated measures made in order to compare pre-test, post-test and follow-up scores of the participants in experimental group, it was seen that there was a significant difference among the means of pre-test, post-test and follow-up scores in three different time periods ($\eta_p^2=.972$). Table 4 shows the results.

The relationship between pre-test, post-test results of the participants to whom TPPDIT was administered in terms of gender.

“Mixed design ANOVA” analysis was conducted to determine whether there was a difference between pre-test, post-test and follow-up scores of the parents, who participated in the study and were in the experimental group, obtained from the DTTEF in terms of being father and mother. Table 5 shows the results of this analysis. According to the results of the analysis, although there were significant differences between pre-test, post-test and follow-up scores of both groups ($\text{sig}=.000$), there was not any significant difference between pre-test, post-test and follow-up scores in terms of genders ($\text{sig}=.676$).

The analysis of providing DTT behaviors of fathers according to having and not having TPPDIT

“Mann Whitney U” test, which is a non-parametric test, was used to evaluate the presence of a difference between providing DTT behaviors of the fathers in experimental and control groups. Table 6 shows the results of performed analysis. The results of the analysis revealed that there was a significant difference ($z=-3.134$, $p=.002$) between providing DTT behaviors of the fathers ($SO=11$; $n=7$) in experimental group and providing DTT behaviors of fathers ($SO=4$, $n=7$) in control group in favor of the fathers in experimental group. It was seen that this significant difference had a large effect size ($r=.834$).

The analysis of providing DTT behaviors of mothers according to having and not having TPPDIT

“Mann Whitney U” test, which is a non-parametric test, was administered in the study to investigate whether there was a significant difference between providing DTT behaviors of the mothers in experimental group and mothers in control group. The reason for preferring a non-parametric test was the fact that group size was insufficient for parametric tests.

Table 7 shows the results of performed analysis. The results of the analysis revealed that there was a significant difference ($z=-3,134$, $p=.002$) between providing DTT behaviors of the mothers (SO= 11, $n=7$) in experimental group and the providing DTT behaviors of mothers (SO=4, $n=7$) in control group in favor of the mothers in experimental group. It was seen that this significant difference had a large effect size ($r=.834$).

Comparison of receptive language levels of children with ASD of parents in experimental and control groups

“Mann Whitney U” test, which is a non-parametric test, was administered in the study to investigate whether there was a significant difference between receptive language skill levels of the children of parents in experimental and control groups. Table 8 shows TELD conjugate age values (months) of the children with ASD in both groups.

The results of conducted analysis were shown in Table 9. The results of the analysis revealed that there was not any significant difference ($z=-.577$, $p=.564$) between receptive language skills of the children with ASD (SO= 6,86, $n=7$) of the parents in experimental group and receptive language skills of the children with ASD (SO=8,14, $n=7$) of the parents in control groups.

Comparison of imitation skill levels of children with ASD of parents in experimental and control groups

In the study, “Mann Whitney U” test, which is a non-parametric test, examined whether there was a significant difference between imitation skill levels of the children of parents in experimental and control groups.

The results of conducted analysis were shown in Table 10. The results of the analysis revealed that there was not any significant difference ($z=-.720$, $p=.471$) between imitation skills of the children with ASD (SO=6,71, $n=7$) of the parents in experimental group and imitation skills of the children with ASD (SO=8,29, $n=7$) of parents in control groups.

Comparison of receptive language levels of children with ASD of parents in experimental group

Friedman test, which is non-parametric alternative to ANOVA test with repeated measures, was used to determine whether there was a significant difference between imitation skills of children with ASD of parents in experimental group during pre-test, post-test and follow-up sessions. The results of Friedman test suggested that imitation skills of the children with ASD increased in a positive way between pre-test, post-test and follow-up sessions (mean rank $1,5 < 1,92 < 2,58$; mean $28,83 < 31,17 < 34,33$), but there was no significant difference between pre-test, post-test and follow-up scores (chi square= 4,05; $p > .05$). Table 11 shows the results of Friedman test.

Comparison of imitation skill levels of children with ASD of parents in experimental group

Friedman test, which is non-parametric alternative to ANOVA test with repeated measures, was used to determine whether there was a significant difference between imitation skills of children with ASD of parents in experimental group during pre-test, post-test and follow-up sessions. The results of Friedman test revealed that there was a significant difference between pre-test, post-test and follow-up scores (chi square= 9,33; $p < .05$). Table 12 shows the results of Friedman test.

“Wilcoxon signed rank test for relevant measures” was used in the study to determine the origin of the significant difference found between pre-test, post-test and follow-up scores of imitation skills of the children with ASD of parents in experimental group. According to the results of conducted analysis, there was a significant difference between pre-test scores and follow-up scores related to imitation skills of the children of parents in experimental group ($z = 2.03, p < .05$). Considering mean rank and summation of difference scores, it was evident that this difference was in favor of follow-up scores. According to these results, it is possible to say that the program has a significant influence on developing imitation skills of children.

Generalization findings of the parents in experimental group

Generalization data were not collected from parents in the experimental group after post-test data had been collected. The parents were requested to imitate “maracas shaking” skill with their children in DTT format. Table 13 shows the scores parents gained from generalization study. .

Social Validity

Social validity: Social validity is used as a program strategy to ensure that socially meaningful purposes are chosen, to develop socially accepted programs and to achieve socially important effects (Gül and Vuran, 2010). One of the important measures of study success is the evaluation of its social acceptance or validity. Parent satisfaction questionnaire was used to determine the social validity of the research. This questionnaire is composed of two parts. The first part of the questionnaire includes 25 questions which can be answered as “strongly disagree, disagree, agree, strongly agree” to indicate agreement levels of parents. In the second part, there are two open-ended questions. The questionnaire was filled by the families after completing the study and analyzed by the researchers. Descriptive analysis was performed for 25 questions included in the first part while the answers of the second part were analyzed by the themes developed. A total score of 90.2 gained from parent satisfaction questionnaire indicates that the parents are satisfied with the purpose, process and results of the study and the study is conducted by respecting ethical values. Qualitative data were obtained from open-ended questions which were included in the second part of the parent satisfaction questionnaire and answered in written by parents. It was seen that the answers of the questions in this part were grouped under “*Intervention opportunity and realizing mistakes, Satisfaction, Regards/suggestions, Working with other families/sharing*” themes.

Discussion

The findings related to providing DTT behaviors of parents and their interpretation

This study investigates the effects of TPPDIT, which was developed to teach parents having children with ASD providing DTT skills, on providing DTT behaviors of parents, as well as effects of parents on receptive language and imitation skills of children. The results of the research indicated that TPPDIT was effective in teaching parents providing DTT skills. It was determined that there was not any significant difference in receptive language and imitation skills of the children of parents participated in the study and the findings were discussed.

The first finding obtained in accordance with the purposes of the study indicates that there is a large increase in providing DTT skills of the parents in experimental group following the TPPDIT while there is not any change in providing DTT skills of the parents in control group. This result shows that the program is effective in teaching parents providing DTT skill. In addition, significant difference between providing DTT skills of the parents in experimental and control group has a large effect size. Furthermore, the results reveal that TPPDIT, an independent variable, has a significant

effect on learning of providing DTT skills of parents. Large effect size of the TPPDDT suggests that TPPDDT be primarily preferred in teaching providing DTT skill and used ignoring the cost of program (Brace, Kemp & Snelgar, 2006). Analyzing opinions of participant parents about the study, in parallel with statistical findings, it was seen that all parents in experimental group were benefited from the study and they stated that the program made positive contributions to them.

It is seen in similar studies in the literature that mothers learn providing DTT skills by means of trainings. The findings of the study are consistent with the similar studies which aim to teach mothers providing DTT skill (Crocket et al., 2007; Lafasakis et al., 2007). All these studies, whose results were similar to the results of this study and which taught mothers providing DTT skills, conducted by single subject research methods. Individual education sessions were performed in relevant studies with a limited number of mothers. Moreover, these studies involved only mothers of children with ASD while fathers did not taken place. This study differed from similar studies in terms of performing with group and being an experimental study, as well as including both mothers and fathers equally in the study. It is considered that these differences will increase the importance and contribution of the study to the literature.

Similar to the findings of this study, the studies that aim to teach parents teaching methods other than providing DTT reveal that parents successfully use methods they learned at the end of training programs. In other parent training studies, in which parents of children with ASD are trained on issues other than providing DTT skills, issues such as teaching imitation skills (Elder et al., 2005; Seung, Ashwell, Elder & Valcante, 2006), teaching basic responses (Symon, 2001), teaching natural language (Charlop-Christy & Carpenter, 2000; Kaiser, Hancock & Nietfeld, 2000), relationship based approaches (Karaaslan, Diken & Mahoney, 2011; Mahoney and Perales, 2003), teaching reciprocal imitation (Ingersoll & Gergans, 2007), joint attention (Drew et al., 2002; Jones, Carr & Feeley, 2006), teaching functional communication (Moes & Frea, 2002) and Denver Model (Rogers et al., 2006) are addressed. It was seen in all of these conducted studies that parents learned these methods and approaches satisfactorily. Similar to this study, the studies performed by Drew et al. (2002), Mahoney and Perales (2003), Karaaslan, Diken and Mahoney (2011) were performed with experimental design. The majority of rest of these studies was conducted by single subject research methods.

According to ANOVA result, which was performed to determine whether the parents in experimental group to whom TPPDDT was administered maintained providing DTT skills they learned after completing the study or not, the parents maintained providing DTT skills they gained after study was completed. Considering the results of ANOVA for repeated measures (Table 13), it is seen that there is a very small ($\text{sig}=.14$, $p<.17$) decrease between post-test and follow-up scores of parents. However, very high η_p^2 value ($\eta_p^2= .972$) obtained from the analysis makes this small decrease insignificant. As it is understood from the result of the analysis, parents satisfactorily exhibit providing DTT skills once they have learned. This situation shows that parents may use DTT in the trainings that will be performed at their home, as their natural environment, with their children and they may perform skill teaching in the long term. In addition, according to answers of parents in the satisfaction questionnaire they began to use providing DTT skill at their homes with their children, and they were satisfied with this situation.

Another question of the study to be answered is whether there is a significant difference between pre-test, post-test and follow-up scores of parents. Since the studies in the literature mostly involve mothers, there is little information on situation of fathers; and whether there is any significant difference between the performances of fathers and mothers or not cannot be revealed.

The studies in the literature suggest that participation and especially active roles of fathers in education and training process make a significant contribution to both child and family. However, it is seen that fathers are not so active in their children's education process due to some factors such as their expected roles in the family, interactions between fathers and their children, children's genders and environmental factors (Dyer, McBride, Santos & Jeans, 2009). The result of ANOVA analysis in the study showed that there was no significant difference between providing DTT skills of parents in

experimental group. This result shows that the performances of fathers and mothers have equal effects on the difference between experimental and control groups in terms of providing DTT skills. In addition, this result is important as it shows that fathers may show performance just as qualified as mothers when their active participation in family training is ensured. This finding is consistent with the results of the studies in the literature (Elder et al., 2011; Jones, et. al., 2006; Laski, Charlop & Schreibman, 1988; Rocha, Schribman & Stahmer, 2007; Seung et. al., 2006). Furthermore, the results obtained from satisfaction questionnaire suggested that parents were pleased with participation of their spouses in the study. It is probable that determination of training hours by considering requests of parents and presence of a staff to take care of children during time periods in which their parents join training have positive effects on full participation of both mothers and fathers in the process. Similar studies also support that such arrangements positively affect parent participation (Dyer, McBride, Santos and Jeans, 2009).

Performances of the mothers for providing DTT in experimental and control groups were compared in the study. The analysis showed that performance of the mothers for providing DTT in experimental group was much better when compared to the mothers in control group. Similarly, comparison of performance of the fathers for providing DTT in experimental and control groups revealed that the fathers in experimental group exhibited much better providing DTT skill when compared to the fathers in control group. In addition, the same effect size of the results of the analysis comparing both the mothers and the fathers in experimental and control groups supports the finding that the mothers and fathers in experimental group are equally effective on the difference between experimental and control groups. Although it is mentioned in the literature that there is a degree of difficulty in participating fathers in their children's education, they participate after they have proper trainings, and this situation is thought to provide very important benefit in the long term.

The findings related to the children of the parents participated in the study and their interpretation

The results of the analysis on receptive language and imitation skills of the children of the parents in experimental and control groups showed that there was no significant difference between receptive language and imitation skills of the children of the parents in experimental and control groups following training. One possible reason for this situation is that AD indexes of the children in experimental group are higher and they are more affected with ASD than the others. Another possible explanation is that most of the children with ASD in experimental group cannot be assessed nor get very high points from communication subfield considering GARS results. In addition, the parents in experimental group started to work with their children after completing the study and follow-up sessions were arranged 5 weeks after completing the study. Considering that learning imitation and receptive language skills is a process and takes a long time, it is reasonable that no difference occurred between the groups during 5 week time period.

Moreover, the result of Friedman test which was performed with the children with ASD in experimental group showed that imitation skills of the children in experimental group significantly differed between pre-test, post-test and follow-up sessions and the origin of this was the difference between pre-test and follow-up sessions. This result suggests that this program is effective on imitation skills of the children. Development in children's imitation skills is considered to be resulted from providing DTT skills learned by the parents. Furthermore, the parents also expressed their positive opinions about the development of their children's imitation skills in social validity form (item 3). It is predicted that the development in imitation skills will positively affect receptive language skills in the long term. In the literature, there are some studies supporting this situation and presenting results suggesting that there is a positive relationship between imitation skills and language skills, and imitation skills predict the development of language skills (Sigman & Ungerer, 1984; Stone, Ousley & Littleford, 1997; Stone & Yoder, 2001).

Although a significant difference was not detected between receptive language skills pre-test, post-test and follow-up scores of the children with ASD in experimental group, the data indicated that there was a statistical increase in receptive language performances of the children. The answers given by the parents in social validity form support the increase in receptive language skills. It is considered that the increase in receptive language performances of children is due to training program given to the parents. Assessment sessions which will be performed 4 to 6 months after completing the program, a time period sufficient for language development, is considered to determine the real impact of the program on receptive language skills.

Components of the program, the findings of the process and their interpretation

There are some similarities and also some differences, in some ways, between this study and other parent training studies in the literature. The studies in the literature, which have aimed to teach parents having children with ASD how to use a teaching technique, have mostly been performed with a limited number of participants (Meadan et al., 2009; Thomson et al., 2010). It is seen that there are only few studies in which the number of participants is large similarly to that of the study conducted. In similar studies, Koegel et al. (2002) conducted family training studies with four fathers, five mothers and one grandmother; Seung, Ashwell, Elder and Valcante (2006) conducted family training studies with eight fathers; and Elder, Valcante, Yarandi, White and Elder (2005) studied with 18 fathers in family training studies. In 20 studies reviewed by Thomson et al. (2010) in which different interventionists learned providing DTT was, it was seen that providing DTT was taught to 77 participants. 57 of these 77 participants were females, 4 of them were males while the gender of other 16 participants was not specified. In addition, it was emphasized that most of the parent training studies in the literature was performed with small groups and studies with broad participation were required (Meadan et al., 2009). Considering that even experimental group of this study includes 14 participants, 7 of which were fathers, it is possible to say that the study is very important with regard to literature and differs from similar studies.

Lectures, written materials, verbal expressions and verbal feedbacks which take part in TPPDIT content are components of most of the parent education studies (Lang, Rispoli & Regeher, 2009; Meadan et al., 2009; Thomson et al., 2010). Only a few studies included role activities, video feedbacks and video analysis within the scope of providing TPPDIT to parents. Having these components in the study, parent satisfaction from the study and providing benefits to the study by parents are important in terms of social validity of the study.

It was mentioned in the studies examined in literature reviews that there were some problems about inter-observer reliability, intervention reliability, generalization, follow-up and social validity data. It was stated in more than half of examined studies that data about intervention reliability was not reported, no data was collected for generalization and permanence, and social validity data was not collected (Lang et al., 2009; Meadan et al., 2009; Thomson et al., 2010). This study collected and analyzed reliability and social validity data for dependent variables as well as generalization, follow-up and intervention reliability data. From this aspect, this study may provide a significant contribution to the literature.

In conclusion, TPPDIT, which was prepared and finalized after detailed research and examinations, was found to be an effective program in teaching parents providing DTT skill. Although it was seen that the program provided benefit to the improvement of receptive language and imitation skills of children with ASD of parents in experimental group, statistically significant difference was seen only in imitation skill. It was seen that parents participated in the study were satisfied with the program and stated that the program provided positive contribution to both themselves and their children. The developed program differed from similar education programs and research studies in that it was conducted with broad participation within the ASD field, included the fathers of children with ASD, and involved many components which had taken place in the previous programs. It is considered

that TPPD TT will provide significant contributions to national and international literature, and new studies are planned for its generalization.

Recommendations for further researches

The study was performed as research center focused and the data obtained from parents and children were collected in the center. In similar further studies, parent trainings and data collection from children may be performed at their home as children's natural environment.

Since training was given after completing the study of experimental group, follow-up data could not be collected from control group in the study. Further studies may be planned so as to obtain follow-up data from control group, thus, follow-up performances of both groups can be compared.

The effectiveness of this program on teachers, undergraduate students and experts may be tested. The program may be intervened to different interventionists to teach providing DTT, therefore, the performances of these interventionists may be compared.

This study assessed receptive language and imitation performances of children of participant parents. Further studies may also assess the performances of children in different fields. In addition, the effect of this study on children's relevant skills may be assessed 3 to 6 months after completing the study.

In this study, the effect of the conducted program on psychological factors of parents such as stress, self-sufficiency and attitude was not evaluated. In further studies, various pre-and post-study psychological and sociological characteristics of participant parents may be evaluated to test the effect of the program on these characteristics.

The study investigates the effect of TPPD TT, which is a package program developed by bringing various components together. Although the program was found to be effective as a result of the study, the contributions of program components to the effectiveness of the program were not studied. In further studies, the effects of the program components may be tested enabling the improvement of the program. In addition, the analysis of the program components has not been studied in the literature and it is recommended to conduct such studies.

The effectiveness of training program can be tested on more individuals taking advantage of distance learning techniques.

Recommendations for intervention

Prepared program was conducted as center focused. In further interventions of the program, little homework may be given to parents and whether the parents practice the skills they have learned at home may also be followed up.

The program was intervened to the groups each containing 4 individuals and only one subject was addressed in each session. The program may be arranged so as to be conducted with larger groups and instead of one, two subjects may be addressed in each session. Accordingly, more individuals may be trained and training may take a shorter time. This situation may be effective in increasing the availability and easy utilization of the program.

This program may be intervened to undergraduate students in the department of teaching intellectually disabled students as elective course in order to teach students providing DTT skills.

This program may also be useful in in-service training activities to support understaffed special training field and increase the quality of present staff.

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Table 1. Information about parents

Variables related to parents		Experiment	Control	Total
Age of Mother	25-30	1	2	3
	30-35	2	3	5
	35-40	3	2	5
	40-45	1	-	1
		7	7	14
Age of Father	25-30	-	1	1
	30-35	2	2	4
	35-40	3	2	5
	40-45	2	1	3
	45-50	-	1	1
		7	7	14
Education Level of Mother	Primary Education	1	1	2
	High School	2	2	4
	Associate Degree	3	1	4
	Undergraduate	1	3	4
		7	7	14
Education Level of Father	Primary Education	1	-	1
	High School	1	2	3
	Associate Degree	4	-	4
	Undergraduate	1	5	6
		7	7	14
Family Income (TRY)	500-1000	1	1	2
	1000-2000	1	1	2
	2000-3000	2	3	5
	3000-4000	2	1	3
	4000-	1	1	2
		7	7	14

Table 2. Information about children

Variables related to Children		Experimental	Control	Total
Age	3	-	1	1
	4	1	1	2
	5	1	3	4
	6	1	1	2
	7	2	1	3
	8	2	-	2
Total		7	7	14
GARS2 TV	70 -85	1	1	2
	85-100	2	3	5
	100-115	1	3	4
	115-130	3	-	3
Total		7	7	14
Gender	Female	-	-	0
	Male	7	7	14

Table 3. t-test results of the participants for independent samples related to providing DTT performances

Group	n	X	SS	Df	t	p<
Experimental	14	82.57	10.40	26	25.91	.001
Control	14	-1.57	6.27			

Table 4. ANOVA results of the participants for repeated measures related to DTTEF pre-test, post-test and follow-up scores

Origin of variance	Df	SS	MS	F	p<	Significant Difference
Time of measure	2	49751,17	24875,58	383,90	.001	1-2, 1-3
Subjects	11	1473,33	134,03			
Error	22	1425,5	64,795			
Total	35					

Df=Degrees of Freedom SS= Sum of squares MS= Mean Square

Table 5. Mixed ANOVA results of the participants having TPPDTT related to pre-test, post-test and follow-up scores

Origin of Variance	SS	Df	MS	F	p<
Between-groups					
Gender	40,111	1	40,111	1001,525	.001
Error	1434,222	10	143,422		
Within-groups					
Time of measure	49751,167	2	24875,583	362,765	.000
Measure*Gender	54,056	2	27,028	.394	.679
Error	1371,444	20	68,572		
Total	52651	35			

Table 6. Mann Whitney U test results of the fathers in experimental and control groups related to providing DTT behaviors

Group	n	Mean Rank (MR)	Rank Total (RT)	z	p	R
Experimental	7	11	77			
				-3,134	.002	.837
Control	7	4	28			

Table 7. Mann Whitney U test results of the mothers in experimental and control groups related to providing DTT behaviors

Group	n	Mean Rank (MR)	Rank Total (RT)	z	p	R
Experimental	7	11	77			
				-3,134	.002	.837
Control	7	4	28			

Table 8. TELD scores of children with ASD in experimental and control groups

TELD Scores			TELD Scores		
	Pre-test	Post-test		Pre-test	Post-test
Experimental	20 Months	26 Months	Control	Below 15 Months	Below 15 Months
	68 Months	68 Months		54 Months	50 Months
	15 Months	17 Months		48 Months	57 Months
	38 Months	35 Months		51 Months	51 Months
	15 Months	16 Months		16 Months	16 Months
	17 Months	26 Months		36 Months	38 Months
	15 Months	15 Months		20 Months	23 Months

Table 9. Mann Whitney U test results of parents in experimental and control groups related to receptive language skills of their children with ASD

Group	n	Mean Rank (MR)	Rank Total (RT)	z	p	R
Experimental	7	6,86	48	-.577	.564	
Control	7	8,14	57			

Table 10. Mann Whitney U test results of parents in experimental and control groups related to imitation skills of their children with ASD

Group	n	Mean Rank (MR)	Rank Total (RT)	z	p	r
Experimental	7	6,71	47	-.720	.471	
Control	7	8,29	58			

Table 11. Friedman test results of parents in experimental group related to receptive language skills of their children with ASD

	n	Mean	SS	Median	Mean Rank	Chi square	p
1- Pretest	6	28,83	21,06	18,5	1,5	4,095	.129
2-Posttest	6	31,17	19,42	26	1,92		
3- Follow-up	6	34,33	19,57	32	2,58		

Table 12. Friedman test results of parents in experimental group related to imitation skills of their children with ASD

	n	Mean	SS	Median	Mean Rank	Chi square	p	Significant Difference
1- Pretest	6	33,66	8,01	35,0000	1,17	9,33	.009	1 – 3
2-Posttest	6	38,33	3,72	38,5000	2,17			
3- Follow-up	6	39,33	2,94	39,5000	2,67			

Table 13. ANOVA results of the participants for repeated measures related to DTTEF pre-test, post-test and generalization scores

Origin of variance	Df	SS	MS	F	p<	Significant Difference
Time of measure	2	61509,33	30754,67	427,91	.001	
Subjects	13	1784,98	137,30	1071,705		1-2, 1-3
Error	26	1868,67	71,87			2-3
Total	41					

Df=Degrees of freedom SS= Sums of Square MS= Mean square

History Teaching Facilities in Ottoman Archive: Archivists' Opinions about Student Visits

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Abstract

Archives are the memory of society and the states and known as the kitchen of the historians. They usually serve to historians and other researchers but in context of learning history they also can to serve teaching history. The Ottoman Archive is one of the institutions that contribute to teaching history. Ottoman Archives' contribution to teaching history will be discussed in this study. The study includes five guiding experts' feedback about student groups' visit and their experience in the Ottoman Archives exhibition site. The study designed as a qualitative research and a semi-structured interview form used as data collection tool. According to the results guiding experts stated that the visits which organised under the guidance of history teachers within the framework of a plan in advance are becoming more efficient. Students who know to read Ottoman writing are more concerned and they seem more satisfied after the visit. The sections that attract students are Ottoman modernization, firmans and berats which have an attractive manuscript. Teachers from different branches, the indifference of the students and the lack of Ottoman Turkic writing knowledge are the main problems that have been identified regarding the visits to the exhibition area

Key Words: Ottoman archive, Teaching history, Museum visits, Primary sources.

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Introduction

Archives have a rich content that gives us opportunities to learn our individual or social past. Beyond being a kitchen for history researchers and author's, archives have roles in history teaching as one of the most important sources of historical knowledge. The main task of archivist is to protect the documents and present them to the researcher. Archivists have also been seen as historians and social scientists and these roles have been discussed since the second half of the 20th century (Spencer, 1983). At the end of this century archivists' educational role emphasized by some researchers like Osborne (1986: 16) and Cook (1997). After that, collaborative work between archivists and educators has been increased and many studies which support teaching have been carried out in the archives (Carini, 2009; Clearly, & Neumann, 2009; Cox, Alcala, & Bowler, 2002; Hendry, 2007). Today, many archives carry out educational activities by giving place to educational experts in their organization. For this purpose some of the archives organize educational workshops and exhibitions and, they include educational sections on their web pages.¹ These initiatives increase the interaction between archives and schools, and act as a bridge between archivists and educators.

In this study, firstly, as an important archive, the Ottoman archives and its educational functions will be mentioned in the context of functions of archives. Regarding this, information about the Permanent Exhibition Area in the Ottoman Archives will be given. Afterwards, in the light of interviews with the experts who works as guides in Ottoman Archive opinions on Permanent Exhibition Area and students visits to this area will be discussed.

Educational Functions of Archives

There are tangible, intangible attributes and values conveyed to the new generation as cultural heritage in every society. Cultural assets and cultural heritage are among the most important requirements of being a nation. One of the most important elements of this heritage is archives. Archives are the title of the country, the identity of the people and the sign of their existence. They are the most valuable historical and cultural treasure of the country that connects the past with the day-today and the future (Can, 2009; Binark, 1995: 258).

The main task of archivists is to store and manage documents and present them to researchers. In addition to these duties, it should not be overlooked that archivists also have roles in history and education (Vassilakaki & Papaconstantinou, 2017; Carini, 2009; Robyns, 2001; Osborne, 1986; Hendry, 2007). Archives, on one hand, have the capacity to provide materials for historians but, on the other hand they provide materials for teachers and students (Şentürk, 2013). In this respect, it is necessary to strengthen the links between schools and archives. To achieve this, history teaching supported by primary resources needs to be developed and resources-based activities need to be augmented.

Osborn (1986) notes that strengthening the link between schools and archives will contribute to teaching. Some of Osborn's suggestions are as: exhibition and visits, projects involving students in archival research, the formation of school-based archives and classroom units of instruction on the role of archives. Osborn (1986) also suggests that pre-service and in-service teacher training activities on using archives and archival materials will enhance the interaction between teachers and archivists. He highlights that establishment of organizational linkages between teachers and archivists will be beneficial.

¹ See some examples: National Archives of USA (<http://www.archives.gov>), British National Archives (<http://www.nationalarchives.gov.uk>); Australian National Archive (<http://www.naa.gov.au/-/visitus/education/resources/index.aspx>), Canadian National Archives (<http://www.collections.canada.gc.ca/education/index-e.html>). In addition to these, the web pages www.europeana.eu and www.beta.historiana.eu can be viewed

The curriculum and teacher qualifications have a supportive approach to the cooperation between archivists and teachers. Out-of-school history teaching was encouraged by emphasizing the visits of historical places and museums in the history curriculum. Analysis and interpretations of sources, identification of evidence that contained in sources and evaluation of primary sources as evidence are addressed in the context of historical thinking skills (MoNEa, 2017). The use of evidence has also been included in the basic skills of the Social Studies Curriculum. It is stated that out-of-school teaching as visits to museums, factories, historical, geographical or archaeological sites should be used in teaching social studies. It is also stated in the curriculum that local and oral history studies can be made in this context (MoNEb, 2017).

Benefiting from archives in history teaching has been strongly emphasized in the statement of B7 as "Making applications about first and second hand resources" in Field Education Information Proficiency in History Teacher Specific Field Qualifications (HTSFQ). Utilizing archives in history lessons and out-of-school history teaching supported in different items like A1.2, A1.3, A1.5, B4,7, B5.2, B5.3 in HTSFQ (MoNE, 2011). Likewise in the General Proficiency of Teaching Profession, there are proficiency indicators that support the use of primary resources and communication with archivists (MoNEc, 2017; MoNE, 2006).

When we look at the educational literature, it is seen that the contribution of the archives to the education is mostly related to the use of primary resources and its influence are linked to the increase of students' knowledge and skills. In this context, the use of primary sources in archives is often mentioned² (Jarosz & Kutay, 2017; Barton, 2005; Fines, 1994; Sandwell, 2008; Işık, 2008; Doğan, 2007).

There are numerous studies which addressing archives and archivists contribution to the education by using primary sources. However, standards for archival skills in the context of historiography or history teaching have not yet been drawn. This prevents historians or history teachers from being able to provide adequate guidance when they are working with their students on primary resources. It is a necessity for archive specialists to play an active role in establishing these standards (Morris, Myktiuk & Weiner, 2014).

The education services of the Ottoman Archives at secondary education level can be handled in four titles. These are: publications, documentary exhibitions which are prepared in various subjects but mainly in local history, visuals sent to the schools for history corners and guiding service for students who visits to Permanent Exhibition Area of the Ottoman Archives. This study focused on the views of the archivists about student visits to the Permanent Exhibition Area in Ottoman Archive. Guidance services are provided to student groups during the visits and this study based on the guide archivists' views on students visits to Permanent Exhibition Area.

Ottoman Archives and Permanent Exhibition Area

The Ottoman archive is the institution where the remaining documents from the Ottoman Empire are stored. It is in the premises of the General Directorate of State Archives, which is affiliated to the Prime Ministry. Although the studies on archiving can be taken back to the Ottoman Empire's powerful periods, the Ottoman Archives were established in 1849 with the opening of Hazine-i Evrak building. There are approximately 95 million documents and 400 thousand record notebooks that produced by the central and provincial organizations of the Ottoman State in the Ottoman Archives (GDoSA, 2017, p. 3).

² When the subject is scanned with the words 'primary sources' on the Educational Resources Information Center (ERIC) web site lists 1875 titles for the last ten years, 699 titles for the last five years and 126 titles for the year 2017. <https://eric.ed.gov>, Access Date: 24.12.2017

The Ottoman Archives were moved to the new campus in Kagithane a district of Istanbul in 2013. This site, built as one of the world's largest historic archive complex, has been packed with warehouses and workspaces that have previously been scattered. In addition to many units, there is also a permanent exhibition area called Hazine-i Evrak' in the archive site. The exhibition area is arranged as a museum and various materials related to Ottoman Empire period and archive's history are exhibited there (GDoSA, 2013).

There is a classroom and nine sections in the exhibition area. In these sections there are objects and imitation documents that related to Ottoman history and Turkish archival history. There is a classroom for 40 people organized as a seminar hall at the entrance of the exhibition area. Incoming groups are given preliminary information about the exhibition area in this classroom area. This area has a structure that can be used in the context of interactive lectures or evaluation of the visits. Apart from the classroom, the sections in the exhibition area are:

- History of archive,
- Firman and Berats,³
- Handwritings by the sultans and princesses,
- Ottoman style of management,
- Ottoman modernization,
- Foundation documents,
- Medals and Ottoman monetary,
- Treaties and letters,
- Ottoman Ministry of Foreign Affairs (GDoSA, 2013).

There are various materials related to Ottoman history and archival history in each section. Document imitations, examples of money and medals, various archiving materials are among the displayed items. In addition, visitors are informed by five multimedia applications displayed on eight different screens in exhibition area. The multimedia applications are titled as '*paper*', '*pencil and ink*', '*social life*', '*Ottoman nations*' and '*diplomatika*'. The content of these multimedia applications were composed in the light of archive documents and reflecting the Ottoman era in the context of the titles.

The first part of the exhibition area is related to the history of Ottoman archive. In this section, there are various archival materials used since Ottoman period, such as a guillotine, boxes, tables and cabinets, envelopes, and nets. In addition to these materials, document imitations on the history of the archive are also exhibited in this section. Some of the documents exhibited in this section are: The instruction of classification and separation of documents and record books that to be moved to the new department of Hazine-i Evrak. Permission granted to Dr Marte, a Stockholm museum officer, to conduct research on the King of Sweden, 12th Charles. The order to build the Hazine-i Evrak building for the protection of documents and record books.

Other parts of the exhibition area are about Ottoman history. In these sections some materials such as coins, medals, miniatures and imitations of many important documents that related to Ottoman history are exhibited. Some of the exhibited items are: The copy of Kanun-ı Esasi, Islahat Firman, the

³ Documents containing the orders, approvals and permits of the Sultan.

document of Gülhane Hattı Hümayunu, the order to remove the Janissaries and replace the Asakiri Mansure-i Muhammadiyye army, Berlin Treaty, Küçük Kaynarca Treaty, Bosphorus Bridge Plan.⁴

There are no studies on the contribution to the archives of history education in Turkey. Moreover, there have been no studies on the educational functions of archives. Given that such studies have not been done yet, the views of archivists about teaching history in Ottoman Archive should be analyzed as a basic start. In light of this view, the purpose of this study is to discuss the history teaching facilities in the Ottoman Archives and evaluate student visits to the Permanent Exhibition Area in the light of the opinions of archive experts. For this purpose, firstly information was given about the Permanent Exhibition Area in the Ottoman archives. Then, the educational contribution of the Archive and Permanent Exhibition Area was tried to be determined according to the opinions of the archivists who works as guides in the Permanent Exhibition Area in the Ottoman Archive. To this end, the study addresses the following research questions:

1. What are the possibilities of contributing to the history teaching of the Ottoman Archives?
2. How are organizing trips to the exhibition area of the Ottoman Archives?
3. What are the opinions of archivists regarding student visits to the exhibition area?
4. What should be done to develop the Permanent Exhibition Area in the context of contribution to history teaching?

Method

The study is a qualitative study aimed at examining the views of archivists on the contribution of the archive to history teaching. The research was a phenomenological study and interview was used as a data collection tool. Phenomenology is a method that offers the possibility to investigate phenomena that are known but can not produce clear discourse in more detail (Yıldırım ve Şimşek, 2011, p. 77). Due to the lack of studies on the educational functions of archives in the literature, phenomenology has been viewed as the most appropriate method to demonstrate the aims of the study.

The working group consists of five archive specialists who work at the Publicity Department and guide visitors to the Permanent Exhibition Area. All of the participants were state officials working in the Ottoman Archive connected to the General Directorate of State Archives. Information on the participants of the study is shown in Table 1.

Table 1. Participant Guides

Guide	A	B	C	D	E
Gender	Male	Male	Male	Male	Male
Experiences in the Ottoman Archive	30	31	30	24	7
Experience in publicity unit	12	10	4	5	3
Field of graduation	History	Religion	History	Librarianship	History

⁴ See this web page for the visuals of Permanent Exhibition Area: <https://www.devletarsivleri.gov.tr/foto-galeri/16/hazine-i-evrak-daim-sergisi/>

A semi-structured interview form consisting of seven questions was used as data collection tool in the study. The prepared questions were reviewed by two history educators, one of them being a history teacher, and the final form given to the interview form. The interviews were recorded by taking notes by the researcher to be used during the writing phase. Interviews were held in the Ottoman Archive and each one took about one hour.

Opinions of Archivists on Student Visits

The main task of archives is to classify documents, create index and summary information, and present them to the researcher. However, contributing to education and teaching is also among the basic tasks of the archives (Güvenbaş, 2013, p.1-11). The most important educational activity of Ottoman Archives is the guiding service for visiting students. Students are informed about the archives and the Ottoman State by increasing their interest towards the history with these guidance service.

More than 20 thousand students have visited the exhibition area since it opened. The majority of student visits were made within the scope of the project of "Istanbul Trips for High School Students" project, jointly conducted by the General Directorate of State Archives, Istanbul Metropolitan Municipality and Provincial National Education Directorate (GDoSA, 2018).⁵ Apart from this project, it is understood from the records kept by the Puplicity Department that many student groups at primary, secondary and university level visited the exhibition area. These visits provide students the opportunity to see documents and objects related to the history of the archives and the history of the Ottoman State. In this study, student visits to the Permanent Exhibition Area in the Ottoman Archives were discussed in the light of the opinions of the five experts who guide these visits. The information gathered from the interviews is presented below.

How are the visits of the students planned, and how long do they last?

It is understood from the answers given that student visits to the Ottoman Archives were made before the opening of the Permanent Exhibition Area. These visits carried out in some undergraduate level courses for the purpose of introducing the archive and demonstration of the research methods and principles. It is understood that after the opening of the Permanent Exhibition Area student visits have increased and students from different levels have visited the archive site.

The exhibition area can be visited individually or in groups. Guidance services are provided for group visits if it the visit reported and scheduled in advance. Visits of student groups from schools are usually reported in official correspondence. However, it is also possible to schedule visits by telephone without official correspondence. Student groups at higher education level, can also visit different units such as classification, restoration, preservation and digitalization in the archive with prior notice and permission.

The five interviewed guides stated that the introductory tour held in the Permanent Exhibition Area was planned according to the number and level of students who came to the archive site. According to the guide archivists, groups of 10-20 people are ideal in number, and student groups with more than 30 students are divided into smaller groups. According to the guidelines, the time spent in the exhibition area varies between 30-90 minutes depending on the age, level, and interest of the student group. Guide A used the following phrases in his interview: *"If the student group knows Ottoman Turkic writing and has interest to the history, the tour takes quate long. As students' questions increase, we can enter different topics via these questions. However, if the student group is not interested in history and if they do not know the Ottoman Turkic writing, they only look at the images and take selfies. In such groups, we follow a standard template that takes about half an hour."*

⁵ For news on the project, see: <https://www.devletarsivleri.gov.tr/icerik/3074/ortaogretim-ogrencilerine-istanbul-osmanli-arsivi-galerisi-gezileri/>; <http://www.ibbgenclikmeclisi.com/Kurumsal/Makaleler/Ayrinti/606-Istanbul-Tanitim-Gezileri>

In the interview, the differences of the guidance service to the students from different levels were asked as a sub-question of this question. Participant guides have indicated that the student levels have a limited effect on the content, but the content could be shortened or extended according to the interest of the students. Guides also stated that if the incoming student group had little interest, they passed on without mentioning some subjects. Guide C answered this question as follow: *“For example, student groups that are under the supervision of English or Physical Education teachers can come. When such groups arrive, the relevance is often low and I skip some parts of the standart discourse. Sometimes 3-5 of the group members show interest, and I organize the content in the direction of their questions and interests.”*

What are the elements that affect students' interest in the exhibition area?

The second question asked to participant guides was related to interest and motivation of the visitor students. The interviewed guide B stated that the name of the Ottoman Archives is a source of motivation for many students. In his answer guide B used the following statements: *“Ottoman Empire is the strongest Turkish States in history. So, everything that carries the name of Ottoman is important for students who are interested in history. When we see the documents related to the lessons learned at school, the interest of the students increase, and they ask more questions. But if the students are not interested in history, they just look over and pass the sections.”* The guide A, used expressions as: *“Visuality is getting interest and the images in exhibition area are attracting students interrest. The entrance of the foyer area and the exhibition area also influences the focus of the students and increases their impressions. For example, the article entitled 'Mucebince Amel Oluna'(fullfill the requirement) attracts attention, and when we explain it, we attract the attention of the students.”* Guide D stated that the welcoming at the entry and the attitude of the guides towards visitors are important. However, according to guide D, the main factors affecting the interest of the students are their expectations and attitude toward history and history lessons. Similarly guides C and E stated that the main factors affecting the interest of the students are the level of the students, the knowledge of history and the knowledge of the Ottoman History.

What kind of contributions does the visit of the Permanent Exhibition Area provide to students?

The third question asked to the guides was related to the contribution of the visits made to the Permanent Exhibition Area. When the answers were evaluated, it was understood that the visits provide cognitive and affective contribution to the students. Guide A stated that *“Students who come to the exhibition area learn about what the archive is, as well as develop a sense of admiration for the past. For example, they see the ornaments in the Fermans and realize the elegance of the Ottoman ... ”*

According to expert guides, visits to the Permanent Exhibition Area reinforce the knowledge of students on various topics, especially the Ottoman diplomacy. Also they learn a lot of new information during the visit. During the trips, as well as the archive history, many topics are mentioned under the headings such as Ottoman modernization, bureaucracy and correspondence, economy, foreign politics and international relations, foundation institutions. All of the interviewed guides expressed that students who have interest and curiosity had reinforced their knowledge on these topics.

In his answer to the question, guide E stated that beside the information about history of the archives and Ottoman Empire were developed students also can develop their archival and exhibition preparation skills. His expressions has continued as follows: *“... We provide information to the students about the storage conditions. When we talk about how the documents are created and stored, how are they became available for researchers, we actually contribute to the archival skills of the students... We can also contribute to the preparation of exhibitions. For example, students from Kandilli High School for Girls wanted to make an exhibition about Adile Sultan. We advised them on how to prepare an exhibition then we prepared an exhibition which contain some texts about Adile*

Sultan's life, her charities, and some photos. So if appropriate projects are prepared, beyond knowledge and values skills can be developed via exhibition visits... "

Archival visits also contribute to affective gains in the context of historical empathy and values. The guide B stated this as follow: *"After finishing the tour in the exhibition area, the teachers who are supervising the student group came to say: 'Here we can perceive the spirit of the Ottoman soul. We were able to perceive the eccentric spirit. Some things we talked about in school are embodied here'."* Other guides also used similar expressions. It is understood that the visits made to the Permanent Exhibition Area have improved students' interest, adherence, and loyalty towards the Ottoman State.

What attracts students' the most attention in the exhibition area?

The fourth question asked in the research relates to what visiting students are most interested in. The key elements highlighted in the answers to this question are shown in Table 2.

Table 2. Exhibit Materials that attract students interest in the Permanent Exhibition Area

Interesting Exhibition Material	f	Guide
Firman and berats	5	A, B, C, D, E
Guillotine	5	A, B, C, D, E
Visuals	4	A, C, D, E
The writings of the Sultan	4	A, B, C, E
Multimedia applications	3	A, B, E
Monetary and medals	3	A, C, E
Treaties	3	A, C, E
Tanzimat Edict (Edict of Gülhane)	2	A, C
The writing of 'Mucebince Amel Oluna'	2	B, E
Islahat Edict (Ottoman Reform Edict of 1856)	1	A
Senedi Ittifak (The Charter of Alliance)	1	A
The Treaty of Küçük Kaynarca	1	E
Tiles	1	D

All of the participant guides stated that the displayed firman and berats and the guillotine attracted the students. Firman and berat are concepts used in history lessons. In addition to this they have an aesthetic and artistic pleasure. According to the guides, due to these characteristics, firmans and berats attract students and other visitors attention. For example guide E says: *"Firmans about women are more colorful and ornamented. When we say this, the interest of the students grows naturally."* The guillotine used to cut paper is one of the other element which attract students' attention. According to all guides, the guillotine gets student attention because it is the object that the students have heard its name but have never seen before.

According to the answers given by the guides, the visuals in the exhibition area are also noteworthy. Istanbul's historical appearance and images containing cross-sections from miniatures have been attract great interest. The guides stated that the students asked many questions about these visuals. Other topics such as the writings of the sultan, multimedia applications, monetary and medals, treaties are the topics that attract students' attention. In addition to these, the tiles and the writing of "Mucebince Amel Oluna" at the entrance of the Permanent Exhibition Area are other interesting elements which students interested in.

What are the most asked questions?

Another question asked at the interviews in the scope of the research relates to the questions asked by the students. The guides stated that the level of students, their interest to the history and the teachers who directs the group were important determinants of the questions asked by the students. Teachers who are at the head of the group of students who come under the cooperation protocol with the Istanbul Metropolitan Municipality are not history teachers but at different branches. These visits are more like cultural excursions. However, if the visits are carried out in accordance with the wishes and plans of history teachers, the interest of the students increasing and more questions are raised by the students.

The interview guide A stated that students have often asked questions about if the documents were original and whether the writings of the sultan were indeed written by them. According to Guide A, the subjects that students often ask questions are as following: *"...Are there documents belonging to each sultan's period, how the bricks are pulled, how firman and berats are ornamented and, how the letters and treaties embellished?"* Guide A, gave examples as Williams IVth and Iranian Shahs ornamented letters. He continued as: *"The visuals created from miniature details attract students' attention and they ask questions about these visuals."* Guide B also stated that the originals of the documents were being asked too much. He expressed that popular TV series effect students questions and gave the following example: *"Students ask questions such as; are there documents about Hurrem Sultan or are there intelligence documents?"* Guide C has also been expressed that students often asked questions as whether images and documents are original. He stated that the questions have changed according to the level of the incoming students, and gave the following example: *"For example, middle school students ask why the letters are curled up at the end of the lines in the firman and berats. Those who are undergraduates ask how they can get work in Ottoman Archives."* According to guide C, the subjects that students are learned in history classes are influencing their questions. In this context, he stated that students ask lots of questions such about Jews emigration from Spain, Ottoman modernization, Tanzimat and Islahat Firmans.

The guides D and E used similar expressions about asked questions. Guide D gave the following example: *"There is a carpet visual in the section of Historyof Archive. Students think it's real and touch it with care. When they realize it's paper, they ask with surprise if the exhibited documents are ariginal."* According to Guide D, there are some other questions that are frequently asked such as The Bosphorus Bridge Plan, the order given for the discovery of the Suez Canal and etc.

Guide E stated that he was asked questions about treaties and monetary as well as firmans and berats. Examples given by the guide E on the questions asked by the students are as: *Are the treaties in one language ore more, is the monetary real, is the guillotine working, how the writers of the documents have been trained, are there still such writers here.* It is understood that when the answers are evaluated, the topics that the students are interested in are overlapped by the subjects they asked more questions.

What are the problems experienced during student visits to the exhibition area?

The sixth question asked to interviewed guides within the scope of the research is related to the negativities experienced during student visits to the Permanent Exhibition Area. Elements highlighted in the given answers are shown in Table 3.

Table 3. Negativities of Student Visits

Negativities	f	Guide
The lack of interest to history	5	A, B, C, D, E
Younger students (in primary or secondary level)	5	A, B, C, D, E
Low level of knowledge of students	5	A, B, C, D, E
Unprepared teachers	4	A, B, C, E
Students do not know Ottoman Turkish alphabet	3	A, C, E
The lack of evaluation process	3	B, C, E
Teachers who are not history teachers	3	A, B, E
Unequal knowledge level of students	3	B, D, E
Disciplinary issues in crowded groups	2	A, D
Static exhibition concept	2	B, E
Inadequate visuals in the exhibition area	1	E

According to the guides, the most important problem in visiting the exhibition area is the lack of interest of the students. The guides noted that students who are not interested in history lessons and do not have a sympathy towards to Ottoman State are only looking at the visuals in a meaningless way. On the other hand, the visits by students who are history-conscious are efficient. But, guides indicated that the number of students with these characteristics is not high. According to the guides, the visits of the students from Social Sciences High School and Religion High Schools (İmam HatipLisesi) are more efficient because of these reasons.

Most of the student visits made to the Permanent Exhibition Area were carried out within the scope of the protocol made between the Istanbul Metropolitan Municipality, Provincial Directorate of National Education, and General Directorate of State Archives. At the beginning of the Project archival visits were only planned for high school students however, secondary school and elementary school students were later brought to archival visits under this protocol. The interviewed guides stated that this caused two major problems. These problems are the low level of student knowledge and the fact that teachers at the head of the groups are not history teachers. Being young students in elementary or secondary level considered as a disadvantage by the guides because it affects knowledge level negatively.

All of the guides stated that the problems stemming from the fact that the students do not know Ottoman Turkish alphabet. According to the guides, despite the document summaries written in Latin, the lack of students' knowledge on Ottoman Turkic writing is decreasing the interest. Because most of the exhibited material is written in Ottoman Turkic writing. Guides stated that the number of visuals and multi-media applications should be increased and the material exhibited in the sections should also be changed at certain periods.

Teachers are another factor that directly affects the interest of students. According to the guides, the students who came with the history teachers were more interested, while the ones who were supervised by the teachers from the other branches were irrelevant. Therefore teachers from different branches have been considered as a negativity in archival visits. Another factor considered as negativity is that teachers should not prepare for archival visits in advance. According to the guides, it would be beneficial for students to be informed before visiting the exhibition area. The guide A used the following statements regarding the situation: *“Some students think they will come to the library. However, if the teachers inform their students in advance, and they come to see the exhibition area in advance, a much more productive job can emerge. If they see the exhibition area, they will inform the students in advance, draw attention to some topics and make it possible for students to benefit more. However, such practices are not very common.”*

The guides interviewed within the scope of the research talked about the negativities caused by the students, the teachers and the exhibition area, but they did not mention anything about the negativities caused by themselves.

How do you evaluate the Permanent Exhibition Area in the context of educational contribution and how can it be improved?

According to the guides, the exhibition area is the showcase of the archive where the history and functions of the archive can be explained at every visitor. The exhibition area is also a place where educational activities can be done. The guides stated that student visits to the exhibition area contributed to the teaching of history, and students who are interested in Ottoman history enjoy being there. The content which is told to the students in the exhibition area contributes to the acquisition of information about the Ottoman history and archives, as well as enriches them in the context of historical consciousness. The guides also stated that some changes to the exhibition area would increase the educational function of the archive. These are the following:

- Some of the elements in the exhibition area contain detailed information. However, a more curriculum-friendly content should be create. For example, most of the exhibited berats are related to financial issues; diversification of topics could be more beneficial.
- Multimedia applications and visuals need to be increased considering that students are more influenced by visual objects. This leads to a more dynamic display style.
- A link can be created on the archive web page to allow teachers and students to see the exhibitid materials without coming to the library.
- Regional contents can be created by considering the Ottoman geography. Regional content can be created under headings such as Balkans, Caucasus, Middle East, Africa, Hijaz. This content can be configured in accordance with high school curricula.
- Some sections can be changed periodically with a thematic approach. For example, in February and March, content can be created under the topics Dardanelles and the First World War. Some other contents likewise, medicine, sports, women, etc can be exhibited for certain periods.
- The exhibition area in the archive can be enriched with the subjects such as writing, reading, document repair, paper making etc.

Conclusion and Suggestions

In this study, Ottoman Archives contributions to the history teaching were discussed. In this context firstly history teaching opportunities in Ottoman Archives briefly mentioned. Then, student visits to the Permanent Exhibition Area in the archive were handled according to archivists opinions who guiding visitor students. As a result of the interviews, it was seen that archivists were aware of the training function of archives and they also suggested to develop it. In this regard, it is understood that the experts who guide students on their trips are open to the modern archival standards expressed by Theimer (2011).

The study showed that the Permanent Exhibition Area in the Ottoman Archives had facilities and equipment that could be used as a history teaching workshop venue within the context of exhibited materials and contents. It is understood from the answers given by the guides that the students are cognitively and emotionally supported in terms of Archivalism and Ottoman history with visits to the

exhibition area. However, despite the existence of a classroom area, it is understood that there are no workshops in various topics that can draw the attention of the students such as the drawing tugras and its features, the changes and properties in diplomatic, illumination and gilding or reading and writing activities of the Ottoman Turkish documents. Such out-of-school teaching activities which increase the relevance of the students to the history lesson need to be done at the secondary level as well as at the undergraduate level.

Given the fact that there are many factors affecting students' interest in visits, it is understood that the approach of guides is also important. In this context, it will be useful for guides to develop themselves in areas such as effective communication, teaching methods and techniques. This is also one of the clearest indicators that it is necessary to increase the interaction between archivists and educators

Although the student visits are made with official correspondence, the teaching content is not planned in advance, just the standard content is told by archivists for every incoming student group. And also it is understood that even the majority of the teachers who brought the student groups did not plan the content. However, in order to maximize the usefulness of museum visits and museum education, it is necessary for teachers to prepare instructional content before the trip and motivate the students by informing them (Cook, 1997). Moreover archivists need to create differentiated content according to the level of the student groups rather than to describe standard content. In this respect, it is necessary that both archivists and teachers should be educated about museum education.

Considering the students' interest in the exhibition area and the questions they ask it is understood that there is more interaction with groups of students who are accompanied by history teachers. From here it is possible to conclude that it would be more beneficial to bring the groups of students to the archival exhibition area in accordance with subjects in the history lessons. Visits to be made before the lessons will attract students towards the subject, while visits after the lessons will reinforce the learning.

The interviewed guides are aware of the educational function of archive; but it is also observed that they do not have the pedagogical background about how education should be in the museums. Because, instead of developing a method of how to introduce the exhibition area to younger students they have stated that it is not beneficial for younger students (primary and secondary students) to come to archive. Similarly, while listing the negativities encountered on students' visits, they never expressed their own educational competence, and also in the context of the development of the Permanent Exhibition Area they have never touched their own needs about museum education. These are interpreted as indicatives of the lack of pedagogical background on the museum education of interviewed guides.

The suggestion that the exhibition area can be made available to teachers and students via the web page of the General Directorate of State Archives is remarkable. In addition, the reorganization of the exhibition site and the development of guides on museum education are among the recommendations of the study. This step may be an important first step in creating online educational content based on archive documents. In this way, archival and educational cooperation can be maintained even in the digitized educational environment.

The use of archival materials in history teaching allows students to learn to use historical materials. This gives them the opportunity to think like a little historian and interpret history. Thus, students can develop various high-level thinking skills, especially analysis, synthesis and evaluation (Castle, 2002; Cook, 1997: 107). In order to achieve this, students need to meet archival material. The Permanent Exhibition Area in the Ottoman Archives has the potential to be a history teaching workshop venue where such studies can be conducted. Using these opportunities provided by this place the interaction and cooperation between history teachers and archivists need to be increased. With this study, it is desired to draw attention to this necessity and to create awareness in this direction.

Visits to the Permanent Exhibition Area in the Ottoman Archive increase students' interest in history lessons and contribute to the cooperation between archivists and trainers as specified by Osborne (1986). Increased interactivity, as evidenced by the results of this study, will enrich the educational contents of the archivists while enriching the teaching methods that history teachers use in their classrooms. In this context, it would be beneficial to encourage and increase student visits to the Permanent Exhibition Area in the Ottoman Archives.

As a result of the work being done, the following suggestions emerged in order to improve the exhibition area in terms of history education and to be aware of the educational functions of the archives:

1. Archivists who guide students in the exhibition area should improve their quality of service given to the students.
2. Different content and stories should be created for student groups from different class levels instead of standard content.
3. The themes in the exhibition area should be enriched and special exhibitions should be formed in different topics at different times of the year.
4. Visual elements in the exhibition area should be diversified and multimedia applications should be increased.
5. Diversified workshops should be held in the class area in the exhibition area.
6. Student visits should be done in relation to the subjects in the curricula within the scope of history and social studies courses.
7. History and social studies teachers (and other teachers) who will bring their group of students to the exhibition area in the Ottoman Archives should visit the exhibition area before the trip and plan their activity in detail. In addition, the plans must include an evaluation section.
8. Educational contents based on archival documents should be created and these contents should be presented to the teachers and students in the web page of General Directorate of State Archive (GDSA).

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The Views and Attitudes of the Teacher Candidates from Preschool and Elementary School Teaching Departments toward Family Participation

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Abstract

Presently the family participation, which is considered as an important part of the education, makes a huge contribution to the whole education of the children. Therefore it is necessary to know the views and the attitudes of the teacher candidates especially before they become teachers and accordingly they should be supported regarding the family participation issue. The purpose of this study is to investigate the views and the attitudes of the elementary education teacher candidates towards family participation. In addition with this research it was attempted to determine whether the grades of the teacher candidates cause a common effect on their attitudes towards family participation according to their department. Within the research descriptive scanning model was used. The sample of the research consisted of totally 300 teacher candidates. Within the research the questionnaire, which was consisted of six open ended questions and Attitude Scale Regarding Family Participation for Teacher Candidates, which was developed by Yavuz Güler (2014), were used. In order to determine the views of the students from Primary School and Preschool Teaching departments, descriptive statistics were used. It was attempted to determine whether there was a relation between the departments with t test. According to their departments whether the grade has a significant effect on the total scores of the teacher candidates regarding family participation and the sub-dimensions was investigated with Two Factors ANOVA. The open-ended questions were given in the tables with frequency and percentages. As a result of the research teacher candidates not having adequate knowledge regarding family participation and the negative views they acquire from the environment regarding the families may cause them to develop negative attitudes and have prejudice regarding family participation.

Keywords: Family participation, preschool, elementary school teaching, teacher candidates

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Introduction

Family participation can be defined as a multidirectional interaction and communication between school and parents (Epstein, 2002: Akt. Tezel-Şahin and Özyürek, 2010; Epstein and Sheldon, 2002). In other words family participation is supporting the parents socially and emotionally teaching them required skills and supporting the development of the children in multiple ways developing the appropriate family and child relationships (Çakmak, 2010; Lindberg and Oğuz, 2016). Erkan (2013) states that many definitions exist for the family participation however the common point within the definitions is family's contribution to the education of the child strengthening the relation and the communication between the school and the family.

Especially the years including the preschool period and the first grades of the elementary school point out a critical period in terms of the child. It is stated that there is a relation at a high level between having a successful education and the education carried out within this process to be successful (Eryaman, 2008; Toros, 2011). Researches indicate that the family participation applications carried out during the elementary and secondary school take an important role within the academic, social and emotional development of the students (Benner, Boyle and Sadler, 2016; Bruinea, Willemse, D'Haem, Griswold, Vloeberghs, Eynde, 2014; Jeynes, 2007; Uludag, 2008). Ma, Shen, Krenn, Hu and Yuan (2016) state that there is a positive relation between family participation and the child's learning outcome. In addition the children who undergo this process successfully generally become successful in other learning stages (Altınkaynak, 2014; Büyüktaşkapu, 2012; Çelenk, 2003; He Ye, 2016; Kaysılı-Keçeli, 2008; Salıcı- Ahioğlu, 2006; Sheridan, Knoche, Kupzyk, Edwards and Marvin, 2011). However the researches carried out indicate that parents must be directed, motivated, educated, informed, and they need to join the management process. Also the researches point out that they lack family education and the family participation cannot be fully carried out because of some reasons resulting from parents and teachers, the applications are only on paper or the participation is limited as helping the class activities or as the participation to the activities out of the classroom (Erdoğan and Kasımoğlu, 2010; Şad and Gürbüzürk, 2013; Ünüvar, 2011). Whereas by the help of the family participation the trust of the family for the institution and the teacher increases, they enjoy being with their children in the same activity, they realise the learning necessity of the child, the teachers feel themselves more confident and parents are supported regarding their children (Zembar and Unutkan, 2001). Therefore Grolnick (2016) states that the increase of the family participation is an important target in the education and within the process of increasing family participation it is very important to determine which family participation studies are more effective, why family participation increase the success of the children, and to know which factors increase family participation, and why parents are volunteering or reluctant to participate.

In Turkey the importance of the family participation increases gradually and this situation is seen within the program development process carried out. The Ministry of National Education determined 15 principles preparing the content within the curriculum constituted with constructivist education approach in the 2005-2006 education year. One of these principles is to support the contribution of the family to the school (MEB, 2006). In addition, in The Ministry of National Education Preschool Education Curriculum it is seen that the importance given to the family participation increases gradually (MEB, 2013). Within this program in order to support the family participation Family Support Training Guide Integrated with Preschool Education Curriculum was developed and teachers were presented activity samples regarding family education. Within the context of the Project of Support for the Basic Education 6 main efficacy, 39 sub-efficacy and General Efficacies of the Teaching Occupation under 244 performance indicators (MEB, 2006). "Providing the Family Participation and Cooperation", which is one of the teacher efficacies, generally involves the constitution of supportive environment for the school-family cooperation. However despite these studies in Kurtulmuş's (2016) study, in which family participation situations are investigated within the teacher efficacy activity plans, it is stated that teachers do not include to participation activities at an adequate level.

In the present day it can be said that family participation, which is considered as an important part of the education, provide great contribution to the whole education of the children and therefore before being a teacher, it is necessary to know the views and attitudes of the teacher candidates from preschool and elementary education departments and accordingly they must be supported in terms of family participation. It is stated that in Turkey there are studies that attempt to determine the attitudes and beliefs of the teacher candidates in limited numbers (Ateş, 2015; Uludag, 2008; Yavuz Güler, 2014). However a study, which investigates the views and attitudes of the teacher candidates, was not found. Thereby the purpose of this research is to investigate the views and attitudes of the teacher candidates from preschool and elementary education towards family participation activities regarding their departments. In addition through this research it attempted to determine whether grades of the teacher candidates according to their departments cause a common effect in their attitudes towards family participation. It is thought that this research will help teacher candidates from elementary education department question themselves about family participation and understand its importance. It is thought that the results obtained from this research will guide preschool teachers and elementary school teachers who work in the primary section to provide school-family cooperation and communication in point of planning and performing family participation studies.

Method

Research Design

This research was carried out with descriptive scanning model, which is one of the quantitative research methods. The scanning model is defined as performing scanning studies on the whole population or a group taken from the population or on the sample (Karasar, 2010).

Population-Sample

The population of the research consists of 1200 teacher candidates who attend Primary Education Department and as a result of the process it was determined that the sample as 291 was adequate (Büyüköztürk, Çakmak, Akgün, Karadeniz and Demirel, 2012). The sample of the research consisted of totally 300 teacher candidates who attend third and fourth grades in the Preschool Teaching (f=157; % 52,33) and Primary School Teaching (f=143; % 47,66). Since the sample of the research was determined among the teacher candidates who have taken at least one of the School Experience, Teaching Application I classes criterion sampling method was used. Within the early period considering the fact that the effect of the family on the child is at a high level; only teacher candidates from Elementary Education and Preschool Education Departments were included in the scope of the research. Voluntary teacher candidates participated in the research and the questionnaire was carried out to these teacher candidates.

261 of the teacher candidates (87%) are female and 39 of them (13%) are male. 47,8% (f=75) of the teacher candidates from preschool training are at the third grade and 52,2% (f=82) are at the fourth grade. 45,5% (f=65) of the teacher candidates from elementary training department are at the third grade and 54,5% (f=78) of them are at the fourth grade. 86% (f=135) of the teacher candidates from preschool training department and 89% (f=128) of the teacher candidates from the elementary training department stated that they did not take any seminar regarding family participation.

Data Tools

Within the research a questionnaire form regarding the determination of the demographic information and the views of teacher candidates regarding family participation and also The Scale Regarding Family Participation for Teacher Candidates, which was developed by Yavuz Güler (2014) were used. The Questionnaire for the Views of Teacher Candidates Regarding Family Participation: The questionnaire consists of personal information questions regarding gender, department, grade of

the teacher candidates from Elementary Teaching and Preschool Teaching Departments and six open ended questions prepared by the researcher. Whether the questions within the questionnaire prepared were comprehensible or not and whether the open ended questions were appropriate for the purpose of the research were presented to the opinions of two experts. In addition, a teacher candidate from elementary teaching department and a teacher from preschool teaching department, that were out of the sample were applied the questionnaire form. As a result of the application it was determined that the answers given to the questionnaire were as expected. The questions asked to the teacher candidates are given below:

1. Did you observe a study regarding family participation in the school you went for application? If you did what were these studies?
2. What comes to your mind when we say family participation activities?
3. What are the positive sides of family participation?
4. What are the negative sides of family participation?
5. Would you like to apply family participation activities when you become a teacher? Why?
6. What kind of family participation activities do you think you will focus on?

The Attitude Scale Regarding Family Participation for Teacher Candidates: This Scale consisted of two subscales which are; cooperation supportive attitudes (15 items) and cooperation inhibitor attitudes (10 items). Cooperation supportive attitudes of the scale include 1, 2, 5, 6, 9, 12, 13, 15, 16, 18, 20, 22, 23, 24 and 25. Items and cooperation inhibitor attitudes include 3, 4, 7, 8, 10, 11, 14, 17, 19 and 21. items. Cooperation supportive attitudes sub-scale cronbach alpha coefficient was found .91, cooperation inhibitor attitudes coefficient was found .89, and total score internal consistency coefficient was found .92. Within this research the internal consistency coefficient was determined as .70 for cooperation supportive attitudes, it was .73 for cooperation inhibitor attitudes and for total score it was found .72. The Attitude Scale Regarding Family Participation for Teacher Candidates consists of statements that were itemized in order to take the views of teacher candidates regarding family participation. The items are ranked as 5- I totally agree, 4- I agree, 3-Indecisive, 2-I disagree and 1- Totally disagree. The lowest score that can be taken from the scale is 25, and the highest score is 125. The lowest score taken from the scale indicate that the individual develop negative attitude towards family participation.

Data Analysis

In order to determine the views of the students from Elementary Teaching and Preschool Teaching Departments regarding family participation descriptive statistics were used. In the first stage of the research the views of the teacher candidates were investigated according to their departments. Firstly the data obtained was evaluated by a researcher from preschool teaching and a researcher from primary school teaching departments. Afterwards these two researchers looked over the concordance and the coefficient of concordance between the researchers was determined as .92. In the circumstances it can be said that the research possess an internal reliability at and adequate level (Miles and Huberman, 1994). Afterwards the researcher expressed a common view. The open ended questions are given in the tables with frequency and percentages.

In the second step In order to determine the views of the students from Elementary and Preschool Training Departments descriptive statistics were used. In the research within the analysis of the data obtained SPSS 20.0 package program was used. In order to determine whether the data distributed normally or not Kolmogorov-Smirnov test of normality was performed. It was determined that the distribution was normal. In addition performing Levene test it was determined that the

variances were homogen. ($p > .05$). The significance level was accepted as .05. The total scores of the teacher candidates regarding family participation according to their grade and department and whether there is a significant effect on the sub-dimensions were examined with Two Factor ANOVA. When the difference among groups were significant the influence quantity, the eta-square (η^2) value was evaluated in accordance with Cohen d values (Pallant, 2016). In the final stage of the research carried out the averages were compared and the power analysis was evaluated and it was determined as .94 (DSS Research, 2018.)

Findings and Interpretation

The findings regarding the observations of teacher candidates, who attended at least one of the School Experience, Teaching Application I classes, are given in Table 1.

Table 1. The observations of teacher candidates regarding family participation at school

	Preschool Teaching		Elementary Teaching	
	f	%	f	%
Family school cooperation	8	10,26	9	19,15
The participation of the family in in-class activities	61	78,21	32	68,1
Homework	8	10,26	4	8,51
Parents meeting	1	1,28	2	4,26
Total	78	100	47	100

As it is seen in Table1, 78 (49,6%) preschool teacher candidates and 47 (32,9%) elementary teacher candidates, who remarked that, they had observations concerning family participation, stated different opinions. Preschool teacher candidates at 78,21 % ($f=61$) level and elementary teacher candidates at 68,1 % ($f=32$) level stated that the family participated in in-class activities. According to this finding it can be said that the family participation is not involved at schools adequately.

Table 2. The views of teacher candidates regarding the question of “What comes to your mind when it comes to family participation activities?”

Views	Preschool Teaching		Elementary Teaching	
	f	%	f	%
The participation of the family in in-class activities	78	53,06	48	39,02
The increase of the family child communication	48	32,6	28	22,8
School family cooperation	8	5,44	26	21,14
Behavioural change in the child	6	4,08	0	0
Home visit	4	2,72	0	0
Parental meeting	3	2,04	18	14,6
Total	147	100	123	100

The teacher candidates were asked “What comes to your mind when it comes to family participation activities?” Preschool teacher candidates at 53,06 % ($f=78$) level and elementary teacher candidates at 39,02 % ($f=48$) level stated that the family participated in in-class activities. Especially it can be said that in preschool education the participation of the family in in-class activities is at a higher level.

Secondly, preschool teacher candidates at 32,6 % ($f=48$) level and elementary teacher candidates at %22,8 ($f=28$) level stated the view of increase in family child communication. It is seen that the view of “parental meeting” was 2,04 % ($f=3$) at preschool teacher candidates and it was at 14,6 % ($f=18$) level in elementary teacher candidates. This finding may indicate that elementary teacher candidates have made more observations in this direction. Generally it can be said that

elementary teacher candidates have less idea regarding family participation compared to preschool teacher candidates.

Table 3. The views of teacher candidates regarding positive sides of family participation in terms of the child

Views	Preschool Teaching		Elementary Teaching	
	f	%	f	%
Contribution to the development of self-confidence	53	35,3	54	45,4
The child's gaining experience	31	20,7	26	22,2
The development of family child connection	28	18,7	9	6
The family's being conscious	18	12	22	18,5
Contribution to the adaptation to school	14	9,33	20	16,8
Contribution to the school-family cooperation	6	4	0	0
Total	150	100	119	100

As it is seen in Table 3 preschool teacher candidates at 35,3 % (f=53) level and elementary teacher candidates at 45,4 % (f=54) level, stated that family participation contributed to the development of self-confidence of the children. Secondly preschool teacher candidates at 20,7 % (f=31) level, and elementary teacher candidates at 22,2 % (f=26) level stated their views on the child's gaining experience. It can be said that preschool and elementary teacher candidates do not have accurate information concerning the benefits of family participation in term of the child.

Table 4. The views of teacher candidates regarding the question of "What are the negative sides of the family participation?"

Views	Preschool Teaching		Elementary Teaching	
	f	%	f	%
No negative sides	83	52,86	70	48,95
The child's being affected negatively	38	24,20	15	10,48
Damaging the teacher's authority	17	10,82	33	23,07
Ignorance of the family nonparticipation	14	8,91	2	1,39
The child's not acquiring independence	5	3,18	23	16,08
Total	157	100	143	100

As it is seen in Table 4 52,86 % (f=83) of the preschool teacher candidates and 48,95 % (f=70) of the elementary teacher candidates stated that family participation does not have any negative sides. In addition preschool teacher candidates at 24,20 % (f=38) level and elementary teacher candidates at 10,48 % (f=15) level stated that family participation causes the child to be affected negatively. 3,18 % (f=5) of the preschool teacher candidates and 16,08 % (f=23) of the elementary teacher candidates stated that the negative side of the family participation was the child's not gaining independence. 10,82 % (f=17) of the preschool teacher candidates and 23,07 % (f=33) of the elementary teacher candidates assume that teacher's authority would be damaged.

Table 5. The reasons of teacher candidates for family participation when they become teachers

Views	Preschool Teaching		Elementary Teaching	
	f	%	f	%
Supporting the child's development	47	40,1	31	29,2
The effect of the family participation to success	21	17,95	20	18,87
The family's being active	20	17,09	14	13,21
Knowing the child better	15	12,82	19	17,9
Being an effective teacher	14	11,97	22	20,75
Total	117	100	106	100

As it is seen in Table 5 firstly 40,1 % (f=47) of the preschool teacher candidates and 29,2 % (f=31) of the elementary teacher candidates stated that they would include family participation activities in order to support the development of the child. 25,47 % (f=40) of the preschool teacher candidates and 25,87% (f=37) of the elementary teacher candidates stated that they would not perform family participation activities when they become teachers.

Table 6. The views of the teacher candidates regarding the question of "If you are thinking of performing family participation activities when you become a teacher, which studies will you concentrate on?"

Views	Preschool Teaching		Elementary Teaching	
	f	%	f	%
Making activities at home and at school	65	52,4	33	37,5
Job demonstration	24	19,4	7	8
Trips	19	15,3	19	21,5
Home visits	10	8,06	12	13,6
Homework	6	4,8	0	0
Parental meeting	0	0	17	19,3
Total	124	100	88	100

As it is seen in Table 6, 117 preschool teacher candidates stated 124 and 106 teacher candidates stated 88 different opinions. There are findings regarding the question of "If you are thinking of performing family participation activities when you become a teacher, which studies will you concentrate on?" 52,4 % (f=65) of the preschool teacher candidates and 37,5 % (f=33) of the elementary teacher candidates expressed that they would make activities at home or at school. However while preschool teacher candidates stated that they did not think of making parental meetings; 19,3 % (f=17) of the elementary teacher candidates stated that they did think of making parental meetings.

Table 7. Family participation attitude scale total score of the teacher candidates according to grade and n, x and s values regarding their sub-dimensions

		Grade Third grade			Fourth grade		
		N	\bar{X}	ss	N	\bar{X}	ss
Preschool Teaching	Total Score	75	84,71	7,729	82	82,13	8,27
	Cooperation Supportive Attitude	75	63,49	7,093	82	61,72	10,81
	Cooperation Inhibitor Attitude	75	21,21	7,781	82	20,41	7,247
Elementary Teaching	Total Score	65	82,89	8,107	78	86,88	10,16
	Supportive Attitude	65	60,446	8,339	78	63,67	7,41
	Cooperation Inhibitor Attitude	65	22,45	7,17	78	23,22	9,82

In Table 7 N, \bar{X} and ss values of teacher candidates regarding Family Participation Attitude Scale according to their grade and departments are given. When preschool teacher candidates' total scores are examined, it is seen that third grade ($\bar{X}=84,71$) teacher candidates' score averages are higher than fourth grade ($\bar{X}=82,13$) teacher candidates. The score averages of the elementary teaching department are higher than fourth grade elementary teacher candidates ($\bar{X}=86,88$). However when the elementary and preschool teacher candidates' total scores are evaluated it can be said that fourth grade teacher candidates possess more positive attitudes.

Table 8. The Variance analysis results of the total scores of the teacher candidates' grade regarding family participation attitudes according to their departments

Source of the Variance	Sum of Squares	sd	Sum of Squares	F
Department	160,435	1	160,435	2,15
Grade	37,515	1	37,515	,502
Department x Grade	802,049	1	802,049	10,74*
Error	22113,279	296	74,707	
Total	2148869	300		

(*p<05)

The common effects of the teacher candidates' department and grade variables on the attitudes regarding family participation were found significant [$F_{(1-300)}=10,74$]. However it is seen that the influence quantity is small ($\eta^2=.035$). Nevertheless it can be said that the interaction of teacher candidates' department and grade explained 3,5% of the variance regarding the attitudes towards family participation and this difference is not necessarily important.

Table 9. The results of the variance analysis of supportive attitude scores of teacher candidates' grade regarding family participation according to their departments

Source of the Variance	Sum of Squares	sd	Sum of Squares	F
Department	22,520	1	22,520	,305
Grade	38,950	1	38,950	,527
Department x Grade	464,205	1	464,205	6,28*
Error	21866,690	296	73,874	
Total	1190246	300		

(*p<05)

The common effects of the teacher candidates' department and grade variables on the cooperation supportive attitude were found significant [$F_{(1-300)}=6,28$]. However it is seen that the influence quantity is small ($\eta^2=.021$). Accordingly interaction of teacher candidates' department and grade explained 2% of the variance regarding the supportive attitudes towards family participation. This situation indicates that department and grade interaction does not create a big influence on the supportive attitude scores of the teacher candidates regarding family participation.

Table 10. The variance analysis results of teacher candidates' departments according to their levels regarding family participation cooperation inhibitor attitudes

Source of the Variance	Sum of Squares	sd	Average of Squares	F
Department	303,170	1	303,170	4,615*
Grade	,013	1	,013	,000
Department x Grade	45,901	1	45,901	,699
Error	19445,846	296	65,695	
Total	162167	300		

(*p<05)

The common effects of the department and grade variables of the teacher candidates on the inhibitor attitude were not found significant [$F_{(1-300)}=,699$]. However it was determined that department affected cooperation supportive attitudes [$F_{(1-300)}=4,615$]. The influence quantity of the department on cooperation inhibitor attitudes is small ($\eta^2=,015$). Hereunder the teacher candidates' grade interaction explains 1.5% of the variance regarding inhibitor attitudes towards family participation.

Conclusion, Discussion and Recommendations

Within this research it is aimed to determine the views and attitudes of preschool and elementary teacher candidates regarding family participation activities. As a result of the research as a result of the observations teacher candidates made in the schools it was determined that family participation is not included at schools adequately, the participation of the family in the in-class activities is at higher level and in preschool education family participation studies are performed more compared to elementary schools. In addition it is determined that teacher candidates considered family participation as the participation in in-class activities. Moreover while preschool teacher candidates expressed family participation as the increase in family child communication; elementary teacher candidates stated that they were second parental meetings. Generally it can be said that elementary teacher candidates possess less information concerning family participation compared to preschool teacher candidates. Erdoğan and Kasımoğlu (2010) stated that at primary level the families believed the importance of family participation however it was not enough in application. In a research carried out with elementary and preschool teacher it was determined that preschool teachers tried to perform different family participation methods however elementary school teachers preferred to use few methods like meetings, school or classroom tea party or phone calls (Özyürek, Yavuz, Akça, Gündüz, Öztürk, Saka and Açıkyer, 2015). Hence as a result of their study Selanik Ay and Aydoğdu (2016) determined that most of the elementary school teachers do not lean to the in-class activities performed with the families however they wanted the families to be involved in the activities out of the classroom. In their study Konaş and Güneş (2012) determined that preschool teacher planned family participation and include different applications on the other hand elementary school teachers do not make any plans and they only call families to the meeting. When the recent studies are examined it can be said that there are not much studies regarding family participation in primary schools; however in preschool education the importance of family participation increases gradually and there are not enough and planned applications in preschool education either (Bağçeli Kahraman, Eren, Şenol, 2017).

Preschool and elementary school teacher candidates stated that family participation contributed to the self-confidence development of the child and enabled the child gain experience. Most of the preschool and elementary school teacher candidates state that family participation do not have any negative sides. However a part of the preschool and elementary school teacher candidates state that the family participation lead the child not to gain independence and cause the authority of the teacher to be damaged. As a result of a research carried out with preschool teacher candidates it was

determined that the self-efficacy beliefs of the teacher candidates regarding family participation studies were at medium level (Ateş, 2015).

As a result of this research teacher candidates majorly stated that they would include family participation activities in order to support the development of the child. In addition a part of the teacher candidates stated that they would have activities done at home and in the classroom. However while preschool teacher candidates stated that they were not thinking of making parental meetings; elementary school teacher candidates stated that they were thinking of making parental meetings. Selanik Ay and Aydoğdu (2016) state that, most of the elementary school teachers do not apply family participation studies adequately and families do not lean to the in-class activities. Accordingly it is thought that teacher candidates think of including family participation activities and also they do not know how they will perform the process. One of the reasons why family participation activities are not applied is the prejudices developed by the teacher concerning family participation. Teacher candidates not possessing enough information regarding family participation, the negative views they acquired from the environment about the families may cause them develop negative attitude and have prejudice for family participation. When the right communication is established and the family participation is performed effectively it can be said that an effective education environment can be formed in terms of the child, family and the teacher.

The common effects of the teacher candidates' department they study and the grade variables on the attitudes regarding family participation were found significant and it was seen that the effect was not significant. It was determined that the score averages of the candidates from the elementary teaching fourth grade were higher than preschool third and fourth grade and elementary teaching third grade candidates' total score averages. In their study Gül and Aslan (2016) determined that elementary school teachers thought that they performed family participation more compared to other branch teachers. As a result of his study, which was carried out with candidates from the departments of Preschool, Counselling and Psychological Guidance and English Teaching, Yaşar Ekici (2016) determined that preschool teacher candidates possessed more positive attitudes regarding cooperation supportive attitudes and total score regarding family participation compared to all the other branches. The common effects of the variables of grade and the department teacher candidates attend on cooperation supportive attitude were found significant. However it can be said that the influence is small. When the averages were examined in order to determine what is the source of the fundamental effect of the department and grade on the cooperation supportive attitudes, it was determined that the total score averages of the elementary teacher candidates from fourth grade were higher than preschool teacher candidates from third and fourth grade and also elementary teacher candidates from third grade. The common effects of the variables of grade and the department teacher candidates attend on cooperation supportive attitude were not found significant. However as a result of the research it was also determined that department affected cooperation inhibitor attitudes. As a result of their research Bayraktar, Güven and Temel, (2015) determined that the age of teachers affect the attitudes regarding family participation; elder teacher possess more negative attitudes. The researches indicate that the attitudes of teachers and teacher candidates towards family participation are effective on family participation applications (Abdullah, Seedee, Alzaidiyeen, Al-Shabatat, Alzeydeen, Al-Awabdeh, 2011; Bayraktar, Güven and Temel, 2015; Graue and Brown, 2003; Moseman, 2003; Pedro, Miller and Bray, 2012; Thompson, Herman, Stormont, Reinke, Webster-Stratton, 2017). Uludag (2008) states that teacher candidates need to be informed about family participation studies. Therefore it is thought that providing them extensive information regarding family participation throughout their education and raising their awareness concerning this issue are very important for them to develop positive attitude and make correct applications. In addition as a result of this study it can be said that preschool and elementary school teachers do not include family participation adequately. Therefore considering the importance of the family in preschool and primary school period seminars and trainings can be given regarding the family participation studies of the teachers. It can be advised that this research can be carried out in different universities with broader sample groups. In addition quantitative and qualitative studies including teachers and parents' views can be carried out.

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A Review of Preschool Manipulative Storybooks Containing Activities*

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Abstract

In this research, it is aimed to determine the status of the preschool manipulative story books containing the activities which are placed before the stories, inside of the stories or after the stories, in terms of date of publications, subject of the stories and kind of the activities in the story. For this purpose, 188 books were investigated for sale in the bookstores of Ankara and İstanbul published between the years of 2005- 2015. Data were analyzed by using a statistical analysis program and findings were presented with frequency tables. The findings of the present study indicated that in the recent years the publication of the manipulative story books has increased. The present study also showed that the place of the activities in the books, the materials of the activities, and durability of the books are appropriate. But it has been determined that the age group of the book, the development area of the activities in the book and directives such as application period of the activities are incomplete in the books.

Keywords: Children's literature, different approaches in children's literature, manipulative story books

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Introduction

Despite the long-term belief that children are small adults, their mental world, imagination, dialectics and psychology vary considerably from adults (Dellal, 2010). Recognizing the distinct aspects of children, assigning them a different social standing, and advancements in education and psychology gradually fostered the emphasis in childhood (Eryaman, 2007; Sağlam, 2009). Such developments in education and psychology also made reflections in the world of literature in that it was started to produce literary works for children as well as adults. Hence, it may be argued that the term children's literature emerged in early 17th century when childhood was regarded as a special period followed by the production of special works for children (Tüfekçi Can, 2012).

Despite the impression that it is easy to produce works of children's literature due to their relative shortness, they are subject to the same literary value judgement. The author should present his idea in a plain and delicate language, avoid a boring style, avoid verbosity and at the same time maintain an aesthetic phraseology, otherwise the child would not read or listen to the material that does not appeal to him (Yörükoğlu, 1977, quoted by: Sağlam, 2009). Particularly during the preschool period when the child's personality is being shaped, a work of children's literature should adhere to the basics of i) addressing topics interesting to the child, ii) supporting the child's mental and emotional needs, iii) leveraging cognitive development, iv) promoting aesthetic perception, v) enhancing language and style to improve self-expression, vi) fostering the skills of critical thinking, creative imagination and creative thinking, and vii) building a reading habit (Kutlu, 2011).

Besides its literary value, children's literature has an educational asset as well. Despite not created directly for educational purposes, children's literature should have the function of building positive attitudes, imparting ethical values or delivering essential knowledge to the child (Yalçın and Aytaş, 2002). Such function furthers children's literature off linguistic contribution. Children's literature allows children to speculate on events and situations, make interpretations and draw conclusions (Eryaman, 2008). In particular, books that offer the opportunities of observation, comparison and classification enhance thinking skills in children (Sever, 2003).

Emerging across a creative idea, manipulative storybooks containing story-related activities, which are the subject matter of this study, are inspired by such developmental aspect of the children's literature. Activities involved in the beginning, body and end of the book are aimed at ensuring that the child thoroughly adopts the book, comprehend the intended message or gain various social and cognitive skills besides linguistic development.

Despite the child's familiarity with the book begins with his relationship with parents, teachers have a significant role in building and reinforcing the reading habit in children (Yağcı, 2007). Preschool teachers are expected to present language activities in an interesting way to the children at schools. In order to render a book reading session more efficient and interesting as a language activity, there are various methods that teachers may apply before and after the session. These may briefly include story animation, puppet play, fingerplay, song linked with the story, rhymes, artistic activities related to the story, dramatization, and question & answer rounds. However, few studies in the literature show that teachers do not spend their time in language activities efficiently, merely running a simple reading session. In their study exploring how preschool teachers practice language activities, Gönen et al. (2010) clearly shows this fact. Accordingly, Gönen et al. (2010) worked with a total of 175 preschool teachers in their study and found that teachers tended to conduct a conversation prior to the language activity followed by a simple question & answer session, and rarely utilized other creative activities. Therefore, in this study, manipulative storybooks containing activities to serve as a guide for teachers are discussed. With the contribution of the books, the purpose is to ensure that teachers are equipped with creative ideas towards potential activities, get familiar with and avail of these books, support children not only in linguistic development but also in other relevant areas, gain a distinct perspective on language activities and hence promote books as more interesting and helpful instruments for children.

- According to this purpose, the following questions were answered.
- How is the distribution of books by years?
- How is the distribution of books by translation?
- How is the distribution of books by topics?
- How is the place where the activities and the materials are located in books?
- What are the types and numbers of activities?
- How are the characteristics of the activities?

Method

The study is a survey-type descriptive study. “A study aimed at gathering data to identify specific characteristics of a group is called a survey” (Büyüköztürk, Kılıç Çakmak, Akgün, Karadeniz and Demirel 2011). Study sample was established by the purposive sampling method. Purposive sampling is a probabilistic and non-randomized sampling approach and allows for in-depth research by selecting data-rich situations depending on the purpose of the study (Büyüköztürk et al., 2011). Study is limited to the books that researchers could access in Ankara and Istanbul. The study sample is composed of 188 books aimed at the 3-6 year old children. The books were obtained from a total of 24 publishing houses and bookstores.

Sample

The study sample is composed of 188 books containing activities aimed at the 3-6 year old children. The books were obtained from various publishing houses and bookstores in Ankara and Istanbul which sold these books during the 2005-2015 period. In the study, all the books aimed at the 3-6 year old children, offered by the publishing houses Tübitak, Türkiye İş Bankası and Yapı Kredi, and bookstores Dost, Arkadaş, Kidsnook and Mephisto were examined. Among them, a total of 188 books containing activities were found and they were all involved in the study.

Data Collection Tools and Data Analysis

In the study, the checklist developed by the researchers was used as the data collection tool to explore various activities contained in books aimed at preschool children at the 3-6 age group. Researchers created this checklist after reviewing local and foreign works of the children’s literature available and consulting with an expert. Checklists are instruments containing the details of the behaviours that the student is expected to develop, and they are employed to identify the weaknesses in the student performance. To what extent an observed performance or product matches the predefined criteria can be identified by means of checklists (Airasian, 1994). Using the checklist so created, 40 children’s books containing activities were examined, and irrelevant items were excluded. The checklist is composed of two parts. The first part includes the title of the book and the publishing house, date of publication, theme of the book, and whether it is a translated copy or not while the second part provides an overview of the types, number, location and details of activities contained in each book. Each book constituting the study population was examined independently by each researcher. Then, researchers collectively reviewed their own assessments, reaching a consensus on non-common items. While items in the first part of the checklist were noted down, those in the second part were marked “yes” or “no” for recording. Findings of the study were analysed on the statistical analysis software and presented in tabular form by frequency and percentage.

Findings and Interpretation

In this study, manipulative storybooks containing activities aimed at the 3-6 old age children were examined on following activity aspects: type, number, location, contribution to intended areas of development, interestingness, alignment to the topic, ease of use, duration of application, the specific area of development involved and whether such area is clearly stated, availability of a rubric to carry out the activity, availability of essential materials in the book, and durability of materials. Furthermore, books were also examined from the aspects of theme, date of publication and original language. Relevant frequency and percentage distributions are shown in the tables below.

Table 1: Date of Publication

Period	N	%
2005-2010	29	15.4
2011-2015	159	84.6
Total	188	100.0

Table 1 reveals that 15.4% (29) of the books containing activities were published between 2005 and 2010 while 84.6% (159) were published between 2011 and 2015. According to the percentage values, books containing activities are on the rise after 2010.

Table 2: Breakdown by Translation

Local / Foreign - Translated	N	%
Foreign-Translated	61	32.4
English	127	67.6
Total	188	100.0

Table 2 reveals that 32.4% of the books containing activities were translated from English to Turkish while 67.6% were originally written in Turkish.

Table 3: List of Books' Publisher

Publisher	N	%
1001 Çiçek Yayınları	13	6,91
Artemis Çocuk Yayınları	8	4,26
Bulut Yayınları	1	0,53
Can Çocuk Yayınları	10	5,32
Doğan ve Egmont Yayıncılık	37	19,68
Enkudi Yayınları	1	0,53
Final Kültür Sanat Yayınları	1	0,53
Formül Yayınları	1	0,53
Hayal Kitaplığı	2	1,06
Mephisto Kitaplığı	1	0,53
Uçan Fil Yayınları	5	2,66
Türkiye İş Bankası Yayınları	19	10,11
Pena Yayınları	4	2,13
Abc Yayınları	1	0,53
Dstil Tasarım	6	3,19
Almidilli Yayınları	3	1,60
Altın Kitaplar	1	0,53

Kuraldışı Yayınları	6	3,19
Kelime Yayınları	1	0,53
İnkılap Kitabevi	18	9,57
Kırmızı Kedi Yayınları	4	2,13
Remzi Kitabevi	2	1,06
Kaknüs Yayınları	3	1,60
Rkidz Yayınları	4	2,13
Pati Eğitim Gereçleri	5	2,66
Yapa Yayınları	10	5,32
Tubitak Yayınları	21	11,17
Total	188	100.0

According to Table 3, the books of 27 publishing houses have been examined. Among the books examined are the books published by Doğan ve Egmont Yayıncılık seem to be the most.

Table 4: Breakdown by Theme

Theme	N	%
Family	15	8.0
Friendship	29	15.5
Behavioural Education	25	13.4
Nature and Animals	44	23.4
Introduction of Distinct Cultures	11	5.7
Conceptual Knowledge	29	15.5
Love of books	1	0.5
Hygiene	13	6.9
Social Rules	21	11.1
Total	188	100.0

Table 4 reveals that 23.4% (44) of the books containing activities cover nature and animals. Accordingly, it may be argued that the most preferred theme covered in manipulative storybooks containing activities is “nature and animals”. This is followed by friendship (15.5%) and conceptual knowledge (15.5%). However, love of books appears to be the rarest theme (.5%) covered in manipulative storybooks. Accordingly, it may be argued that manipulative storybooks containing activities under this study are not efficient in building love of books in children.

Table 5: Location of Activities and Materials in the Book

Location of the Activity in the Book	N	%
Body	50	26.6
Inserted page and end	9	4.8
Beginning	5	2.7
End	108	57.4
Supplemented part	16	8.5
Total	188	100.0

Table 5 reveals that 57.4% of the activities are located at the end of the books while 26.6% at the end, 8.5% at the supplemented part, 4.8% at the inserted page and end, and 2.7% at the beginning. In more than 50% of the books under this study, activities are located at the end. Accordingly, it may

be argued that majority of the activities are located at the end of the books. It is further observed that very few of the activities are located at the beginning of the books. Accordingly, it may be argued that only very few of the books cover activities for book promotion purposes.

Table 6: Types of Activities Contained in Books

	Activity Type	N	%
1	Folding windows	1	.37
2	Art activities	38	14.18
3	Games (Word games, dice games, matching)	29	10.82
4	Questions & answers on the story	40	14.93
5	Story-introducing article	42	15.67
6	Technological books (including audio books/projectors/CDs)	23	8.58
7	Stickers	35	13.06
8	Gap-filling	1	.37
9	Story creation	6	2.24
10	Puppets	6	2.24
11	Signing contract	3	1.12
12	Puzzle, rhymes, poems (Turkish language exercises)	13	4.85
13	Image completion	1	.37
14	Kitchen exercises	1	.37
15	Following the rubric	1	.37
16	Educational exercise	6	2.24
17	Threading yarn through hole	1	.37
18	Book critics	9	3.36
19	Recommendations to the family	8	2.99
20	Guessing	1	.37
21	Jigsaw	3	1.12
	Total	268	100

Table 6 reveals that 16% of the activities contained in the books consist of theme-introducing articles. Accordingly, the most common activity type contained in books is introductory articles. Introductory articles present the characters of the story and provide interesting details relating to the creatures covered by the book or their lives. Ranked second after introductory articles is the question & answer sections (15%) located commonly at the back of the book. Next, art activities (13%) are ranked among top activity types as well. Accordingly, most common types of activities used in the books are introductory articles, question & answer sections and art activities. Art activities in the books are mainly painting, paper cutting, paper folding and drawing. Rarest activities found in manipulative storybooks are folding windows, gap filling, image completion, kitchen exercise, following the rubric, threading yarn through hole and guessing.

Table 7: Number of Activities Contained in Books

Number of Activities	N	%
1	133	70.7
2	32	17.0
3	12	6.4
4	3	1.6
5	1	.5
6	1	.5
7	6	3.2
Total	188	100.0

Table 7 reveals that 70.7% of the books contain one activity while 17% contain two, 6.4% contain three, 1.6% contain four, 0.5% contain five, 0.5% contain six, and 3.2% contain seven activities. It was observed that majority of the books available in the market under this study contain

few activities. As to the number of activities, the book with the highest number of activities contains seven activities. On the other hand, books with lowest number of activities contain only one activity.

Table 8: Activity Quality

	Yes		No	
	N	%	N	%
Does the activity contribute to the child's cognitive development?	180	95.7	8	4.3
Does the activity contribute to the child's socioemotional development?	139	73.9	49	26.1
Does the activity contribute to the child's linguistic development?	147	78.2	41	21.8
Does the activity contribute to the child's psychomotor development?	139	73.9	49	26.1
Is the activity interesting?	174	92.6	14	7.4
Is the activity aligned to the theme?	182	96.8	6	3.2
Is the activity easy to use/practice?	188	100	-	-
Does the activity have a defined duration of practice?	-	-	188	100
Are materials essential for the activity available in the book?	188	100	-	-
Is the area of development intended by the activity stated?	10	5.3	178	94.7
Does the activity have a rubric?	188	100	-	-
Are the materials to be used in the activity durable?	188	100	-	-

Table 8 reveals that all of the activities contained by books are easy to practice and fit to the preschool age group, materials essential for the activity are available in the book and are durable. In 5.3% of the books, the area of development intended by the activity is stated. Accordingly, in majority of the books containing activities, activity rubric does not state what specific area of development is intended by the activity. Further, it was found that activities contained in the books are mostly aimed at improving the children's cognitive area of development. This is followed by linguistic development. On the other hand, activities aimed at children's socioemotional and psychomotor areas of development constitute 73.9% of the total. Accordingly, it may be argued that books covering different activities intend mostly the cognitive and scarcely the socioemotional and psychomotor areas of development of the children. Another major finding is that none of the activities contained in the books have a defined duration of practice. Accordingly, it may be argued that activity rubric primarily contains 'how to do' instructions.

Discussion, Conclusion and Recommendations

The study revealed that 15.4% of 188 books in total were published during the 2005-2010 period while 84.6% during the 2011-2105 period, and that 32.4% of the books are translated from other languages while 67.6% are originally written in Turkish.

Majority of the books under the study are originally written in Turkish, however there are many translated books as well. Sever (2003) argues that works of the children's literature written in original language build native traditions and values in children while foreign works equip them with global values. When a child encounters local and foreign works, he will get adapted to local and global circles smoothly and gain national and universal values (Dalboy, 2010). The critical point here is to avoid roughly translating the works of children's literature driven by the fallacy that they are easy to translate. In his translation, the translator should identify with the author and maintain the aesthetic and linguistic nature of the original work (Sağlam, 2009).

As to the thematic breakdown of storybooks under the study, 'nature and animals' is the most common theme covered by the books (23.4%). This is followed by friendship (15.5%), conceptual knowledge (15.5%), behavioural education (13.4%), social rules (11.1%), family (8%), health (6.9%) and familiarity with different cultures (5.7%). The least common theme covered by the books is lvoe of books (0.5%).

On the other hand, the most common theme covered by the books is nature and animals followed by friendship, conceptual knowledge, behavioural education and social rules. Gönen et al. (2011) examined books aimed at children at the first stage of primary education and reported that most common themes covered by those books were social rules followed by nature and animals, and friendship. These two studies show thematically similar results except for the single fact that social concepts are in the foreground in primary school books. Şirin (1998) emphasizes that particularly the following themes are preferably covered in works aimed at children: love of family and friends, familial and cultural values, love of nature, etiquettes, positive personal traits, and animals, primarily pets (Karakuş, 2006). This suggests that authors discussing the childhood period prefer almost the same themes. According to Yörükoğlu (2000), parents should make sure that the books they select for their children are interesting in addition to thematic suitability for the child's development level. Similar studies in the literature and the present study commonly reveal that books themed love of books are little if any.

Checklist method was used in evaluating the books. Considering the location of activities in the book and availability of materials essential for the practice, it was concluded that books are appropriate. According to Ersoy and Bayraktar (2015), essential aspects of children's books are classified into two: external aspects and internal aspects. External aspects are illustration, materials, book size, weight, binding, font properties and page layout while inward aspects are theme, characters, language and style. A qualified children's book should have the following properties: durable, high-quality material and sturdy binder design; high-quality printing and clear colours; high-grade and eye-friendly opaque sheets; size and weight suitable for the children to carry and handle the book; average font size of 16-20 points; fine combination and balanced distribution of images and texts; harmonized illustrations through the use of symmetry, contrast and details; theme suitable for the child's development and mental world; maintaining the child's interest; cultivating imagination; use of characters that the child can identify with; avoiding the involvement of too many characters; and plain, brief and tuneful language and expression (Gönen, 1989; Erdal, 2008; Kara, 2012; Gönen et al. 2012).

Considering their high-grade paper layout dressed with cardboard cover and binder, books under this study were generally found to be appropriate for sturdiness. However, it was further observed in the books that guidelines relating to activities detailing the intended age group, intended area of development and duration of practice are generally incomplete. In their study examining the illustrated children's books published in Turkey between 2000 and 2010 for content and illustration, Gönen et al. (2015) found that generally abstract themes are preferred, a plain expression is maintained through regular sentences, and images and texts are integrally combined in the books. In addition, it was further observed that 52% of the books involve animal characters. In this regard, the finding of Gönen et al.'s study (2013) is consistent with the findings of this study. In another study, Gönen et al. (2012) examined illustrated children's books aimed at primary first grade students. They found that majority of the books have cardboard covers and punched binders, making them more vulnerable; health and hygiene are the most common themes covered; a plain and fluent language is used, however a sophisticated and slang language is partly observed as well; most of the books have a image-text affiliation, yet imaginary items are overused; and text-image proportion is poor. In his study, Demircan (2006) examined the books in the Tubitak children's library for their internal and external aspects. It was found that the books have acceptable interior and exterior aspects, however have various shortcomings which can briefly be listed as follows: there is no author introduction, the age group intended by the book is not clear, there is no book guide and the cover image is not interesting. Körükçü (2012) examined books aimed at preschool education for various aspects. He found that some of the books have incomplete colophons; there are big, medium and small-size books in the market, and books generally have a compact design, making it convenient to carry and handle them; majority of the books are bound by the gluing method and a thin cardboard cover is used, making the book more vulnerable compared to those with sewn binding; and books have an intensive text-image affiliation.

Recent rise in the number of published manipulative storybooks containing activities may be attributable to the fact that such storybooks are more appealing to both parents and teachers, leading to

an increase in demand, as well as to technological advancements, offering greater opportunities for supporting books with different media such as audio and CDs.

As to the location of activities & materials in the book, it was found that they are located at the end in 57.4% of the books, 26.6% in the middle in 26.6% of the books, at the supplemented part in 8.5% of the books, at the inserted page and end in 4.8% of the books, and at the beginning in 2.7% of the books. As to the activity type, it was found that most common activity type (15.67%) is “theme-introducing articles” and least common types are image completion, kitchen practice, gap filling, following the rubric, and activities aimed at building self-care skills (threading yarn through hole). In the books, each activity is covered once. However, 70.7% of the books contain only 1 activity. 17% of the books contain 2, and 6.4% of the books contain 3 activities. Accordingly, an inverse proportion is observed between the number of activities and number of books.

The key focus of this study is to examine the activities in the books. Having examined the books with regard to the location of activities, it was found that activities are at the end in 57.4% of the books while they are at the beginning in only 2.7% of the books. This suggests that the idea of practising the activity after reading the story is more efficiently built in children. In addition, involving the activity before the story is important as it would help catching the children’s attention, arousing interest in them and preparing them for the story. In 8.5% of the books, the activity is covered as a supplemented part. Most of these activities are supplemented materials essential for the activity such as CDs, game boards, etc. As these materials cannot be fit into the book or in its back page due to their huge size, they are supplemented to the book. Despite commonly left to the preference of the user, it is more appropriate to employ the activities after the story. According to Gönen, Uludağ, Tanrıbuyurdu and Tüfekçi (2014), books enriched with supporting supplementary materials facilitate the child’s learning of the concepts and understanding of the story in the book. In addition, books supplemented with supporting materials help the child utilize the book efficiently when it is not attended by parents. In 26.6% of the books, activities are located as inserts. In most of these books, stickers are inserted in the middle of the book in a design avoiding tear of the page when pulled out. Nathanson (1995) argues that a book containing stickers is an entertaining activity that stimulates the child to re-screen and explore the initial knowledge derived from the book. Hence, children can keep reading and learning rather than watching TV for fun. Stickers urge the child to physically interact with the book and offer a second opportunity to catch the knowledge or message delivered by the book. Engel and Diamond (1987) argue that sticker is an interactive method preferred for its influence in fostering the child’s interest. Moreover, the availability to locate stickers in any desired place within the book offers a convenience and flexibility to both the producer and reader.

Examining books by activity type reveals that 15.6% of the books use “story-introducing articles”. As it is not always involved in books, “story-introducing article” is not discussed as an activity type in this study. Introductory articles illustrating the theme and characters of the book are rather located at the back of the book. The activity ranked second after introductory articles is the question & answer activities. In 14.93% of the books, the question & answer method is utilized. In their study, Gönen et al. (2010) report that one of the most common language activities used by teachers is the question & answer method. These books help teachers implement the question & answer method effectively and serve as a model for producing different questions. Cost-effective books containing distinct activities inducing a higher level of student involvement in the class would be a preference for teachers. A review of activity types reveals that stickers are thematically inserted in 13.06% of the books. Factors that make stickers in books a preferred method of activity for publishing houses may be cost-effectiveness, appeal to children, easy adaptation to the story, and convenience of insertion thanks to compact design. The disadvantages of books containing stickers may be that they are for single use, and many children cannot practice the sticker activity for several times. For this reason, it may be difficult to use them at school. In 8.58% of the books, various audio and video technologies such as volume buttons, CDs are employed. Audio and video create an interest in children towards the book and promote the book’s attractiveness. However, bringing these technologies in compact form for fitness to book size creates an added cost burden, therefore price of such books is much higher compared to others. This obstructs accessibility to such kinds of books. In

their study, Gönen et al. (2014) reported that 20.5% of the children's books under their study were offered to sale as accompanied with various supplements such as story and music CDs/DVDs, toys and puppets; some of the books contained volume buttons numbered by page used to present, when pressed, an audible narration of the story or to play songs linked with the story. Accordingly, both of the studies include similar findings as the study sample includes books containing supplementary materials such as audio CDs and puppets. Art activities were used in 14.18% of the books. While some of them support the creative thinking ability of children, some others merely involve one of the story characters in the painting page.

70.7% of the books under the study contain only a single activity. While 17% of the books contain two activities, books containing four, five and six activities are very rare. Therefore, preschool manipulative storybooks should be enriched with more activities to creatively support cognitive and linguistic development of the children.

In general, books were found to be appropriate in terms of the activity location in the book, practicability of the activity, and availability of materials essential for the practice. However, it was further observed in the books that guidelines relating to activities detailing the intended age group, intended area of development and duration of practice are generally missing. Such shortcomings are expected to be completed so that books can be used more efficiently and better serve to the intended purpose for users. For this reason, awareness of parents and teachers in children's literature and language activities can be raised, and use of different approaches in children's literature can be emphasized. In their experimental study, Wasik and Bond (2001) found that when used in combination with interactive methods, children's books promote the linguistic and literacy development of children more effectively compared to plain reading.

To this end, publishing houses may publish more books containing activities at reduced prices to facilitate accessibility by parents and pedagogues. Moreover, books containing activities may be introduced to parents and pedagogues to raise their awareness and cultivate the development of children.

Even if not contained in the books, there are other various story-related thematic activities available to pedagogues. Such activities that can be practised before, during and after reading can be listed as follows:

- Writing a postcard, in cooperation with children, addressed to the author or the character in the book,
- Creating, in cooperation with children, an illustrated timeline of the events in the story,
- Stopping at a certain page of the book and asking about what any other story character not covered in that page may be doing and where,
- Each child posting a paper tree on the board and filling it by marking the book title and author on paper flowers,
- Encouraging the children to draw with small sticks the figure symbols of the story characters,
- Reading the story and creating a memory map of the words included.
- Exploring the images in the book and asking questions to children on the image colour, composition, lines and shape, and the page layout

- Asking children about their favourite characters in the story (name, good or bad, etc.) and asking them to act them
- Asking children to draw a poster that would also promote the book,
- Depicting the story from the perspective of other characters in the story (e.g. depicting the snow white from the perspective of the dwarfs)
- Organizing a contest derived from the story (e.g. an apple picking contest after the snow white's story),
- Showing the children the images of characters prior to reading the story and asking them to guess the character profile

(Burke, 2005; Gönen, 2015).

In conclusion, children's books are educational works besides their literary assets. Linguistic, cognitive, social and emotional development and literacy skills of children engaged with books since early childhood are promoted (Beyazova, 2006). Most effective examples of children's books for their attractive and educational value are interactive books with which children can intellectually and physically interact (Nathanson, 1995). In this study, preschool manipulative storybooks were examined for their quality and activities contained, and it was found that children's books containing activities are on the rise after 2010. It was further found that the most common theme covered by the books under the study is nature and animals, followed by friendship and conceptual knowledge. Another finding of the study is that activities are generally included at the beginning and in the middle of the book. Books mostly cover introductory articles, question & answer sessions and art activities. Majority of the books contain a single activity, and peak number of events contained in a book is seven. It was found that activities contained in the books are appropriate for the preschool age group. In most of the books, materials essential for the activities are durable. However, there are also various shortcomings in the books which can be primarily listed as follows: there are no rubrics, intended development area of the activity is not stated in most of the books, and details about the duration of the activity are not available.

In conclusion it is suggested that the types of activities, numbers and instructions for use in the books can be increased. Increasing the number of subjects in the books containing the activity may be useful for attracting the pre-school children's interest to different subjects. It is thought it is important that the books containing the activities should include development areas of the children and time of activities.

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Attachment 1. The list of Books

Number	Name of Books
1.	Spinderella
2.	Zip- Zip Can Caniko
3.	Zip- Zip Can Caniko Ve Dev Kemikler
4.	Zip- Zip Can Caniko Misir'a Gidiyor
5.	Zip- Zip Can Caniko Uzayda Kayboluyor
6.	Zip- Zip Can Caniko Kopek Kulubesinde
7.	Comert Agac
8.	Dogumgunu Hediyesi
9.	Ruzgarin Uzerindeki Sehir
10.	Kasif Dora Tuvalet Egitimi
11.	Kasif Dora Benim Ve Senin İçin Gorgu Kurallari
12.	Bulut Canavarlari
13.	Buyumek Ve Kuculmek (Sihir Matematik Hikayeleri)
14.	Elma Seven Keci
15.	Kel Tilki (1 Oyku 1 Bilgi 1 Oyun)
16.	Yuzen Kelbek (1 Oyku 1 Bilgi 1 Oyun)
17.	Pasta Gitti
18.	Aslan Kral (Sinema Salonu)
19.	Disney Prenses
20.	Mickey Mouse
21.	Marvel Kahramanlari
22.	Winnie'nin Sinema Salonu
23.	Barbie Sinema Salonu
24.	Arabalar Sinema Salonu
25.	Arabalar-2 Sinema Salonu
26.	Disney Prenses Sofia Sinema Salonu
27.	Gurultucu Maymun Oynamayi Seviyor
28.	Tirtil
29.	Merakli Ayicik
30.	Uykucu Ayicik
31.	Fil
32.	Kugu Golu
33.	Barbie Muzik Kutulu Sihirli Balerin
34.	Karlar Ulkesi
35.	Prenses Sofia
36.	Hello Kitty
37.	Kul Kedisi

38.	Kirmizi Baslikli Kiz
39.	Eglenceli Hayvanlar
40.	Harika Balerinler
41.	Winnie The Pooh- Sonsuza Dek Arkadas
42.	Kucuk Yaris Arabasi
43.	Kucuk İtfaiye Arabasi
44.	Stil Dolabim Barbie
45.	Yasli Oduncu İle Tilki
46.	Uyurgezer Fil
47.	Karadeniz'deki Yunus
48.	Kardesim
49.	Kucuk Esek Ve Yak'in Dogum Gunu
50.	Kucuk Esek Ve Yilbasi Kutlamasi
51.	Kediler Yaz Okulu
52.	Kucuk Sirlar
53.	Minimiki Akiko'nun Gizli Bahcesi
54.	Minimiki Ashna'nin Sihirli Kutusu
55.	Minimiki İnes Ve Ejderha Gulu
56.	Minimiki İsabela Ve Deniz Tanricasi
57.	Minimiki Ve Mohea Ve Dans Kralicesi
58.	Minmiki Lena Ve Altin Gozlu Kedi
59.	Winnie'nin Arkadaslari Okuma Bayrami
60.	Tinker Bell Ve Yavru Atesbocegi Okuma Bayrami
61.	Tinker Bell Ve Arkadaslik Bahcesi Okuma Bayrami
62.	Ailem Ve Ben Aslan Kral Okuma Bayrami
63.	Oyun Oynayalim Arabalar Okuma Bayrami
64.	Yardimlasma Zamani Okuma Bayrami
65.	Cicekler Nasil Buyur Arabalar Okuma Bayrami
66.	Alkislar Donald Amca İcin Okuma Bayrami
67.	Okyanusu Kesfedelim Okuma Bayrami
68.	Gorunmek İsteyen Kucuk Hayalet
69.	Buyuk Babam Nasil Biryidi?
70.	Akdeniz Sularini Alir Giderse
71.	Karatavuk Ormanin Kurtarilmasini Bekliyor
72.	Kivilcim Enerji Sorununu Nasil Cozecek?
73.	Cocuklar Dunya'yi Geri İstiyor
74.	Kahraman Bisikletimle Tertemiz Kentim
75.	Cop Adada Kucuk Bir Denizkizi
76.	Gelincik Ciftlikte
77.	Kitapkurdu Lily
78.	Pepee- Yasasin Yuzmek
79.	Pepee- Yasasin Dis Fircalamak
80.	Pepee- Yasasin Uyumak
81.	Pepee- Yasasin Sac Kestirmek
82.	Pepee- Yasasin Tirnak Kesmek
83.	Pepee- Yasasin Yogurt Yemek
84.	Pepee İle Oykuler- Farkliliklar
85.	Pepee İle Oykuler-Affet Beni
86.	Pepee İle Oykuler- Seviyorsan Soyle
87.	Pepee İle Oykuler- Buyumek Guzeldir
88.	Pepee İle Oykuler- Kalbim Kirildi
89.	Pepee İle Oykuler- Ozledim Seni
90.	Leliko İlk Kitaplarim Serisi Renkler- Yesil
91.	Leliko İlk Kitaplarim Serisi Renkler- Sari
92.	Leliko İlk Kitaplarim Serisi Renkler- Kirmizi
93.	Leliko İlk Kitaplarim Serisi Renkler- Mavi
94.	Leliko İstedigin Renge Boya
95.	Leliko Doya Doya Boya
96.	My Little Ponny
97.	Disney Sindirella Cam Ayakkabilar Cikartmali Oyku Kitabi Serisi

98.	Disney Karlar Ulkesi Cikartmali Oyku Kitabi Serisi
99.	Disney Sevimli Saraylilar Bal Kabagi Cikartmali Oyku Kitabi Serisi
100.	Disney Sevimli Sarylilar Pirlanta Cikartmali Oyku Kitabi Serisi
101.	Disney Sevimli Saraylilar Fistik Cikartmali Oyku Kitabi Serisi
102.	Disney Sevimli Saraylilar Pitircik Cikartmali Oyku Kitabi Serisi
103.	Barbie Prensesin Super Gucu Cikartmali Oyku Kitabi Serisi
104.	Barbie Prenses Sihri Cikartmali Oyku Kitabi Serisi
105.	Barbie Prenses Deniz Kizi Cikartmali Oyku Kitabi Serisi
106.	My Little Ponny Gizemli Pastalar Cikartmali Oyku Kitabi Serisi
107.	Tweety Baharin Uyanisi
108.	Tweety Su Zambaklari Orkestrasi
109.	Tweety Kayip Yildizin Yolculugu
110.	Alya Ve Tirmik
111.	Kucuk Kelebegin Ruyasi
112.	Tembeller Krali Badi
113.	Uzun Burun Bingo
114.	Duru İle Doruk Piknikte
115.	Duru İle Doruk Kucuk Gezginler
116.	Periler Cesareti Anlatiyor
117.	Periler Ozguveni Anlatiyor
118.	Periler Empatiyi Anlatiyor
119.	Periler Alcakgonullulugu Anlatiyor
120.	Periler Minettarligi Anlatiyor
121.	Periler Comertligi Anlatiyor
122.	Periler Dayanismayi Anlatiyor
123.	Periler Sorumlulugu Anlatiyor
124.	Cemile Plajda Oynuyor
125.	Cemile Ciftlige Gidiyor
126.	Cemile Bahceyi Kesfediyor
127.	Hareketli Ev
128.	Hareketli Su Parki
129.	Hareketli Ucak
130.	Hareketli Gun
131.	Hareketli Super Market
132.	Hareketli Kumsal
133.	Hareketli Tamirhane
134.	Hareketli Bahce
135.	Hareketli Liman
136.	Hareketli Oyun Saati
137.	Hareketli İnsaat
138.	Hareketli Park
139.	Hareketli Makineler
140.	Hareketli Lunapark
141.	Hareketli Oyuncaklar
142.	Hareketli Tren
143.	Joel Ve Kazu'nun Dostlugu
144.	Bulutunu Arayan Su Damlasi
145.	Kelebegini Arayan Ayse
146.	Ozgurlugunu Arayan Kelebek
147.	Yemegini Arayan Tirtil
148.	Caliskan Filler İs Basinda
149.	Emre'nin Kumesi
150.	Asli Ve Minik Dostlari
151.	Ciftligin Sevimli Nobetcileri
152.	Geveze Papagan
153.	Annecigimi Seviyorum Cunku...
154.	Ninecigimi Seviyorum Cunku
155.	Dedecigimi Seviyorum Cunku
156.	Uyumayi Seviyorum Cunku
157.	Altin Sacli Kiz Ve 3 Ayi

158.	Kirmizi Baslikli Kiz
159.	Pembe Ucutma
160.	Kirmizi Sut Arabasi
161.	Kiskanc Kurbaga
162.	Tavsan Ailesi
163.	Pitir Aricik
164.	Kucuk Sincabin Yardimsever Arkadaslari
165.	Top İle Baslayan Arakdaslik
166.	Kirpi Kikinin Karni Agriyor
167.	Badi Ordegin Arkadasi Nerede
168.	Kelebek Kanadi Benek Benek
169.	Bir Mulyon Ne Kadar Buyuk
170.	Gokyuzu Ne Kadar Yuksek
171.	Deniz Ne Kadar Derin?
172.	Bebekler Nereden Gelir?
173.	Dogruluk Tasi Kimberlit
174.	Kendim Olmaktan Mutluyum
175.	Hep Beraber Olmak Guzel
176.	Harika Bir Takim
177.	Babam Neden Burada Degil
178.	Annem Beni Hala Eskisi Gibi Seviyor Mu?
179.	Yasli Ayilar Agaca Tirmanamaz
180.	Her Zaman Her İstedigimiz Olmaz
181.	Kesfedin Karincalar
182.	Kesfedin Arilar
183.	Kesfedin Orumcekler
184.	Kesfedin Kelebekler
185.	Ne Yapsak Da Tehlikedeki Turleri Korusak?
186.	Ne Yapsak Da Ormansiz Kalmasak?
187.	Ne Yapsak Da Topragin Verimsizlesmesini Durdursak?
188.	Ne Yapsak Da Dogal Felaketlerle Bas Etsek?

Teacher Preparation Programs in the United States

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Abstract

According to Baker and Rytina's (2014), the total number of legal immigrants coming to the United States during the ten years from 1980 to 1989 is 990,000, whereas in two more recent years from 2010 to 2012, the number rose to 2,810,000. As a country with an increasing influx of immigrants from all over the world, the United States has expressed a paramount need for the proportionately rising number of well-trained English as a Second Language (ESL) teachers. This paper presents the origin of American teacher education dated back from the nineteenth century, noticing common features and variations amongst teacher preparation programs. The significance as well as desirable goals of American teacher training programs are also discussed. Additionally, realities at teacher preparation institutions and workplace, and enormous challenges facing programs of pre-service preparation in the U.S. are demonstrated. Perceptions of qualified teacher preparation programs held by teacher educators', teacher candidates', school administrators' perspectives, and the correlation amongst these three perceptions are explored. Finally, exemplars of qualified teacher education programs in the United States are demonstrated for replication.

Keywords: teacher education, teacher educators, pre-service teachers, English learners

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Preservice Teacher Education Programs

Origin

The origin of American programs of preservice preparation could be traced back to the early nineteenth century (Spring, 2011). The birth of the common schools resulted in the demand of teacher resources, and women were welcomed to participate in the teaching group because they accepted lower salaries compared with those of male teachers. In addition, since the colonial period, American colleges were regarded as a “child of the church” and a “nursery for ministers” as affirmed by President Thomas Clap of Yale in the eighteenth century, “educational institutions were essentially religious in nature and function” (Sansing, 1990, p. 3). The connection between domestic duties, moral virtues, and the abilities to nurture good future citizenry for the nation created the public image of women as publican mothers, salvaging the society. Therefore, the very beginning teacher education institutes chiefly trained female teachers.

Amongst the first teacher preparation schools in the United States were the Emma Willard School, which was originally named Troy Female Seminary, established in Troy, New York in 1814 but officially started in 1821 and the Reverend Samuel Hall, founded in 1823 in Concord, Vermont (Emma Willard School, 2016; Jeynes, 2007; Spring, 2011). In the teacher education program, besides content domain, teachers-to-be were trained in pedagogical methods, class management, and moral character development. Recommendation letters with the signatures of Emma Willard, the owner of the Troy Female Seminary, were regarded as the first documents certifying qualified pedagogues. During the Post-Revolution period, the door of more academies opened to young women. After graduation, female graduates were recruited by many schools, and it was concluded that teaching became women’s first professional career (Spring, 2011).

Common Features

Preservice teacher programs in different teacher training colleges and universities shared certain common modules. Foundation courses such as sociology, philosophy, educational psychology, and history were generally taught in the beginning of the programs. Next, content-area preparation, i.e., general education and liberal arts for primary teachers or subject concentration for high school teachers, would be covered by teacher candidates. Besides, essential courses relating to the nature of learning, cognitive development, pedagogical methodologies, and field experience were required in almost all training programs (Goodlad, 1990).

Variation

A range of marked variations amongst teacher preparation programs lay in instructors’ established various course objectives and different program components or structures. In terms of purpose of conferred degrees, teacher programs could be either academic study or licensing for certification. As for undergraduate students, the training programs might function as additional minors or major study programs. The length of programs could increase from four to five years for the undergraduates and be expanded to some more years for the graduate students. With respect to venue, the preservice teacher training can be university/college-based or field-based programs (Holmes Group, 1986).

Significance

Educating moral and competent citizenry for the nation has been consistently of paramount concerns for teacher educators. The National Commission on Teaching and America’s Future (1996) documented that inadequate investment in education brought about tragic consequences for America

due to the remarkable correlation between low literacy and financial dependence, which increased the likelihood of crime. In the same vein, Darling-Hammond (1997) stated that poor education did not support people a decent living standard and increased the possibility of joblessness, state reliance, and incarceration. To illustrate, over half of the U.S. prisoners were below the average level of literacy demanded by the job market, approximately 40% of the children involved in juvenile delinquency struggled with learning in schools.

Suffering from inadequate educational expenditure, in poor areas with “loose” teacher recruitment and high teacher attrition, thousands of pupils experienced unprepared and inexperienced teaching, and constant substitute teachers. Reported by the National Commission on Teaching and America’s Future (1996), at least 56% of high school students were taught physics by either mathematics teachers (27%) or English teachers (21%) in the 1990-1991 academic year.

The doomsday scenario of American education escalated when several school districts continually recruited “teachers” who were not ready to work as teachers (National Commission on Teaching and America’s Future, 1996, p. 5). The following statistics from over forty states showed the dismal American condition of teacher. About a quarter of novice teachers were not qualified enough for the job. Over 12% of newly-recruited teachers did not undergo any formal teacher training. 14% new hires did not fulfil state teacher standards (National Commission on Teaching and America’s Future, 1996).

According to the National Commission on Teaching and America’s Future (1996), without sufficient education, the number of population who lived on assistance programs and Social Security would increase in the future and lead to a deleterious aftermath for the nation. Grappling with these insurmountable problems, James B. Hunt Jr., Chair of the National Commission on Teaching and America’s Future in 1994, called for drastic reforms in schooling starting with teacher education. He purported that teachers and teaching belonged at the “heart” of the education reform (National Commission on Teaching and America’s Future, 1996, p. 4). After 20 years, the National Commission on Teaching and America’s Future (2016) preserved the affirmation that teachers was positioned at the “heart” of the educational system (p. 5) and that “the [education] system [began] with teachers” (p. 19). Consequently, the future of America heavily depended on seeking out qualified teachers, assisting them to maximize their potentials, and rewarding them for their rigorous work. The report of the National Commission on Teaching and America’s Future (1996, 2016) served as a guideline for redesigning teacher preparation programs, licensing, hiring qualified teachers, conducting profession induction, setting proper standards for teachers and students, buttressing teachers with professional development, organizing schools in a manner that supported teachers’ and students’ success, and awarding effective teachers.

It was crucial that preservice teacher programs performed a pivotal role in the upcoming decades. Every single aspect of educational reforms highly depended on competent teachers with necessary knowledge and skills (Darling-Hammond, 1997). Nationwide legislators, experts, and educators have called for dramatic reforms in prospective teacher programs to train well-performed teachers in an attempt to raise educational standards to higher levels and create the human capital for the demands of the labor market. Sweeping changes to education were proposed by the National Commission on Teaching and America’s Future (1996, 2016) showing no tolerance for unprofessional teachers, poor teacher training programs, incompetent teaching practice, or unbeneficial pedagogical methods that could not enhance learning.

Desirable Goals

Because “the true use of Education, is to qualify Men for the Employments of Life,” to “infuse them with a Public Spirit,” a “Benevolence for Mankind,” and “to make them more extensively serviceable to the Commonwealth” (Sansing, 1990, p. 3), Zeichner and Liston (1996) proposed that teacher training practice ought to be conducted under the five following reflective traditions concerning teaching education and teaching practice during the twentieth century. The first tradition,

the academic orientation, was described as a content-based approach. This tradition placed emphasis on teachers' content-area knowledge and their capacity to transmute the subject to students. However, knowledge of subject matter alone was not sufficient to teach learners, teachers had to attain pedagogical knowledge to transfer what they knew and understood to students.

Holding the belief that scientific research studies provided valuable findings for education, the social efficiency version stressed teachers' capabilities to wisely put research findings regarding pedagogical knowledge into their own practice. Teachers could either match their internal classroom practice with external research results (i.e., technical strand) or self-judge their personal ideologies and experience to flexibly transmit concepts, ideas to students.

The developmentalist orientation focused on teachers' capacities to build up lessons and instructional activities on students themselves. Teachers' observations and awareness of students' prior knowledge, backgrounds, interests, intellectuals, and especially students' readiness for specific assignment should generate classroom actions. The role of effective teachers includes observing students' behaviors in the classroom atmosphere like a "naturalist," inquiring into their own practice like a "researcher," and connecting students' active class participation and learning process like an "artist" (Zeichner & Liston, 1996, p. 58).

From a political point of view, the social reconstructionist version emphasized teachers' abilities to comprehend and analyze the circumstances of the society with the express purpose of reflecting on schooling and assessment of classroom practice to actively and effectively contribute to the development of a better society with equity, justice, and improved living standards. Teachers' actions should be grounded on both classroom and society contexts since what took place in the class resulted from the world beyond the classroom. In fact, human beings were under the influence of cultural, political, institutional forces; nonetheless, these forces were affected by what individuals did. Consequently, schooling could not be parted from the realities happening outward the classroom. Teachers' practice had to be connected to the changes and development of the society in which schooling were incorporated as a component. In order for teaching practice to become more socially reflective, teachers had better amalgamate to form teacher communities for mutual learning and support.

Aiming at making teaching better, the generic orientation highlighted teachers' thoughts or intentional reflections about what they were doing. Only by developing rationales for all of classroom activities – what teachers were doing, why they were doing this activity, what would occur after the activity – did teachers not become "slave[s] to chance, irrationality, self-interest, and superstition" (Cruikshank, 1987, p. 34).

Although teachers' priority and certain situations might determine their stress on one of the first four aforementioned traditions, teachers were not expected to follow a separate orientation. Good teachers, according to Zeichner and Liston (1996), had to pay attention to all five traditions with different forms and emphases as their components were not completely exclusive. Whether the set of orientations could be achieved depended on teachers' objectives and how they attained these goals.

Advocating the fourth tradition, Villegas and Lucas (2002) argued that their proposal of integration of multicultural social components into the prospective teacher programs was situated on the beliefs that diversity deserved to be addressed. The panacea view of schooling considered education as a tool to endorse justice and equity in the multicultural society (Spring, 2011; Villegas and Lucas, 2002). It was supposed that the infusion of multicultural awareness in the preservice curriculum would make teachers culturally responsive when instructing learners. In an equitable school, teachers would become socio-culturally conscious of their own identities and complicated connections between the school and the society, articulate plurality of students' varied backgrounds as valid, and nurture the belief that they could work as "agents of change" to reconstruct education (Villegas and Lucas, 2002, p. 25). Additionally, constructivism view ought to be modelled by teacher trainers in college courses, not just talking about its strengths. According to this view of learning, all

children were considered to be able to acquire new knowledge, and teachers' responsibilities encompassed responding to the diversity of learners, bridging the gap between what students knew and the new concepts by encouraging their critical thinking abilities and cooperation in problem-solving tasks. Direct instruction, memorization or rote learning, recitation should never be employed in a constructivism class, even for learners at beginning levels. In order to facilitate the learning process, teachers had to acknowledge as much information about students as possible, inside and outside the school boundary (i.e., their hobbies, interests, past experiences that built up their current attitudes) (Villegas and Lucas, 2002).

In line with the first four reflective teaching practices described by Zeichner & Liston (1996), Schubert (2014) mentioned four traditions for designing what was worth learning or what should be included in the curriculum that prospective teachers should be aware of. First, the intellectual tradition valued great works in art, music, literature, philosophy, psychology, mathematics, history, social sciences, and natural sciences. This tradition assumed that the organized knowledge, understandings, insights from these disciplines, which stood the passing of time, were beneficial for students. Second, the social behavior version stressed the practical values of behaviors that helped students to succeed in their lives. What being taught in schools should be the behaviors that brought students success in the real world. Third, the experiential orientation supported John Dewey's (1938) progressive curriculum philosophy with experiential learning (Schubert, 2014). Advocates of this orientation believed that students learned best when their interests and curiosity generated learning activities. Four, the critical reconstruction version reiterated Joel Spring's (2011, p. 383) viewpoint of schooling as "sorting machines" of the society. Individuals' social variables such as age, gender, ethnicity, nationality, religion, competence, socioeconomic status, marital status, and the like all impacted their education in terms of types and levels of quality that they received. What required from sympathetic teachers was fair treatment and justified attitudes towards students with social disadvantages.

Realities

At teacher training institutions. In contrast to comprehensive philosophical traditions of teacher training programs, there were a mismatch between most prospective teacher programs and the aforementioned philosophies (Eryaman, 2008). Goodlad (1990) disparaged the incoherence among teacher education program components such as foundation courses and subject matter, and confusion caused by poor organizations of different departments housed in colleges/schools of education, even in one of the smallest programs in his research sample. Many teacher students complained about incoherent and inappropriate foundation classes as they were "too theoretical" and extremely inauthentic (Bransford et al., 2000, p. 202). What they learned from these classes did not help what they would have to do in a real class. To illustrate, regarding method courses, students lodged complaints about inadequate amount of practice whilst the courses were supposed to equip students with approaches, methods, instructions, and curricula. In general, novice teachers criticized these courses to be time-consuming and unintellectual. Sharing the same viewpoint, the National Commission on Teaching and America's Future (1996) condemned the organization of teacher programs were disjointed in such a way that made it difficult for undergraduates to make connections or to pool all the fragmented courses for a whole view. The situation became worse when Goodlad (1990) found the lack of communication and coordination amongst the authority who controlled the future of teacher training programs. Similarly, teacher education course instructors did not have the tendency to communicate with one another, and they did not share the ideological notions either.

The National Commission on Teaching and America's Future (1996) addressed knotty problems with teacher education programs, primarily caused by insufficient teacher preparation. Since teacher programs did not have to be accredited, the quality of these programs in different universities tremendously varied. Many universities regarded educating teachers as "cash cows," so school funds might be invested in any other students rather than preservice teacher students (National Commission on Teaching and America's Future, 1996, p. 13). Moreover, the period of four years was misjudged to be adequate for preservice elementary and secondary teacher students to acquire the content

knowledge, the fundamentals of learning process, and the learners. The goal of developing teacher students to become subject experts was neglected. Prospective teachers were not exhilarated to quest and deepen their content domain knowledge to teach thorough and challenging curricula (Bransford, Brown, & Cocking, 2000). The negligence of promoting education research studies amongst teacher candidates impeded their “lifelong learning” for there is no connection between school learning, teaching, and research findings in the field (Bransford et al., 2000, p. 202). Next, most of the college classes were delivered in lecture format and low standards, which caused boredom to learners. This teaching method together with recitation, memorization diverged students considerably from problem-based, “minds-on,” or hands-on activities (Bransford et al., 2000, p. 202). Accordingly, preservice teachers attending education programs with the same attitudes as they did in high schools: passive, disengaging, and submissive (Holmes Group, 1986). In fact, the way that preservice teachers acquired knowledge in teacher education institutions was likely to be replicated to how their future students learn in the classroom (Bransford et al., 2000). In other words, these bad teaching models for prospective teachers increased the likelihood that novice teachers would use these approaches when teaching students. With respect to disastrous impacts on teacher students, grading practices in teacher programs contributed to discourage student collaboration (Bransford et al., 2000). Additionally, due to the demand of certification and degree requirements, programs of preservice teacher preparation tended to become superficial in terms of content area and educational research studies, which was not sufficient for teacher students to work professionally in the future classrooms.

Zeichner (1981) vehemently condemned the increase of hours in clinical experiences without reference to the quality of the field-based experience, which was worth to be put into full consideration. He bombarded field experience with direct questions:

What did teacher students learn during their participation?

Were the established goals for this experience achieved?

How did prospective teachers perceive the relationship between the internship purposes and what they claimed to learn?

Likewise, the Holmes Group (1986) criticized parts of the curriculum of teacher programs were disjointed, redundant, incomprehensive, irresponsible, and ineffective, which left teachers-to-be to “wander about” during the undergraduate programs (p. 50). The prospective teachers’ real experiences with the teacher preparatory programs usually provoked unresolved conflicts with preservice teacher ideologies and negatively affected the quality of teacher programs.

After graduation, teacher graduates had to take licensing tests which were not grounded on latest research studies and to some extent supported George Bernard Shaw’s infamous maxim about teaching profession: “He who can, does. He who cannot, teaches” (Shaw, 2008, p. 4). To illustrate, Shulman (2013) compared the teacher certification tests in various American states dated back to March 1875 and those in 1980s. Up to 99 percent of the California State Board examination for endorsing primary teachers concentrated on subject matter in 1875 while the 1980s teacher examinations heavily emphasized teaching abilities, without reference to the knowledge of content. The test questions in the 1980s ignored the process of transformation from teachers’ knowledge to learners’ interpretation. Most of the exams focused on methods of instruction, test time management, low-level questions, and so on.

Moreover, political influence from the federal, state government, university administration boards, school authority, which regarded as gross interference by Goodlad (1990), exerted a deleterious effect on preservice teacher preparation programs. It was the interference of political regulations with pioneering teacher programs that caused these education programs to be less innovative. To put it another way, local politicians and authorities, rather than educators and experts, shaped the preservice teacher training programs (Shulman, 2013). In fact, most teacher students were trained in public colleges and universities financially sponsored by the legislators and governors of the

state. After graduation, they worked in public schools and again were put under the pressure of the local and federal authority through the school administration boards (Elmore & Sykes, 1992).

At workplace. After experiencing all the difficulties in preservice teacher programs, novice teachers, even those from renowned teacher education institutions, were fraught with serious challenges. Amongst the most severe difficulties encountered was to surmount the transfer phase between education and employment (Bransford et al., 2000). In other words, apprentice teachers needed assistance to smooth the transition from college environment with classes supervised by faculty to a real-world school where they were recruited as teachers and defied to transfer their content and pedagogy knowledge. Although teacher candidates gained vast initial knowledge during the transfer process, this was regarded as "critical time" for them (Faez & Valeo, 2012, p. 450). The transition process did not take place automatically, it required assistance in applying acquired knowledge into new contexts for constructive feedback and reflection. The new environments offered high chances for novice teachers to try and adjust themselves for dramatic growth as educators. Shulman (2013) referred to this transition as the challenging period from an expert learner to an apprentice teacher. He showed concerns about this important transformation in the following questions:

How did the successful college student transform his or her expertise in the subject matter into a form that high school students can comprehend?

When this novice teacher confronted flawed or muddled textbook chapters or befuddled students, how did he or she employ content expertise to generate new explanations, representations, or clarifications?

What were the sources of analogies, metaphors, examples, demonstrations, and rephrasings?

How did the novice teacher (or even the seasoned veteran) draw on expertise in the subject matter in the process of teaching?

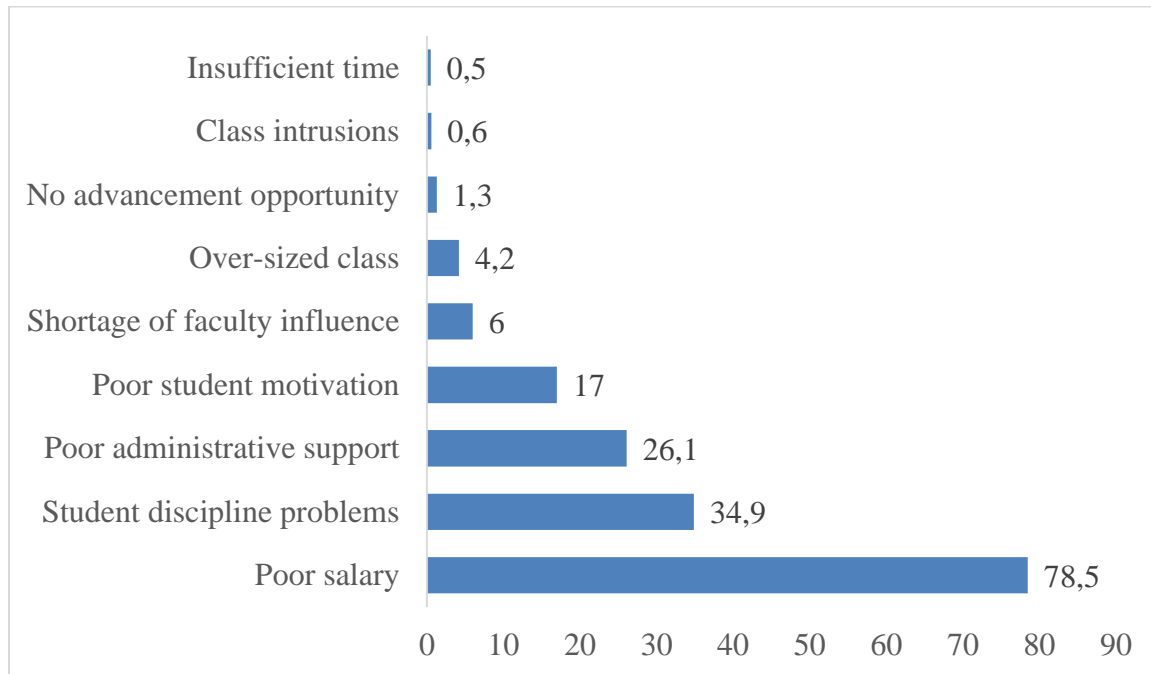
What pedagogical prices were paid when the teacher's subject matter competence was itself compromised by deficiencies of prior education or ability? (p. 5)

In addition to the baffling transition period, beginning teachers encountered a host of disparities between what they expected and what real schooling was like. Many schools were not operated consistently with the state-of-the-art findings from educational research studies on learning. Too often, the school administrators showed preference for quantity rather than quality of the subject knowledge, testing subject content and abilities in isolation and de-contextualization rather than integration, individual teaching rather than team teaching, and limited application of new educational technology. Consequently, entering the very first classes with updated knowledge from the teacher preparation programs, novice teachers were confronted with differences and even contradictory beliefs, conflicting ideological and philosophical notions, which fermented the discord between educational studies and realistic classroom traditions (Bransford et al., 2000). Apprentice teachers were mandated to either "sink or swim" in the beginning career as teachers (National Commission on Teaching and America's Future, 1996, p. 14).

Furthermore, new teachers were bedeviled by other school-related matter that gave cause for job dissatisfaction. For instance, they were frequently assigned the most problematic classes like oversized classrooms with at-risk students and extracurricular responsibilities without or with little assistance from veteran teachers. Apart from bureaucratic pressure, teachers received modest wages as "semi-skilled workers" (Darling-Hammond, 1997, p. 6). As a result, within the first three years of the teaching job, the turnover rate of apprentice teachers was unsurprisingly reported to be of alarmingly high (30%) (Darling-Hammond, 1997). According to Ingersoll and Smith (2003), the data they collated from the Schools and Staffing Survey and Teacher Follow-up Survey (TFS) nationwide displayed that the percentage of beginning teachers who left the profession in the first five years was

between 40 and 50. Responding the TFS, 18.9% of beginning teachers left the schools because of staff cutback or school reorganization; 42% of teachers quit the job due to their personal reasons such as pregnancy, health, child rearing, etc.; 38.8% pursued other jobs, and 28.9% left because they felt dissatisfied with education. Aligning with Darling-Hammond (1997), Ingersoll and Smith's (2003) reported that low salaries caused 78.5% of these dissatisfied former teachers to leave the profession.

Figure 1. Reasons causing new dissatisfied teachers to leave the profession



Teachers played a significant part in the success of knowledge enhancement in a school. Accordingly, teacher students should be given many opportunities to understand the nature of learning process (Bransford et al., 2000). Nevertheless, most of courses in teacher training programs and professional development were conducted in a different, even opposite manner to what documented by the body of educational studies about efficient learning. Whilst research reported that teacher effectiveness was built up by having teachers spend time sharing their experience about student learning within the teacher community, many teacher workshops and seminars were carried out as a decontextualized, one-off event and hence did not fulfil teachers' needs. Formal professional development for teachers did not satisfy the criteria for learning to occur from learner-centered, knowledge-centered, assessment-centered, and community-centered perspectives (Bransford et al., 2000). Moreover, whenever districts had to struggle to balance their budgets, the fund for teacher development would be the very first in the list to be cut (Darling-Hammond, 1997).

A large number of preservice programs did not fit neatly into the learning practices recommended by the latest educational studies. Due to their radical effects on new teachers' preparation for initial teaching, attitudes towards lifelong learning and professional development, teacher education programs should be delivered with well-defined objectives, beliefs about the nature of learning based on ground-breaking research, and academic curricula filled with considerable and deep apprehension. The ultimate goal was to avoid the cacophony between what undergraduates learned at teacher training institutions and what occurred in real classrooms, which might impede their employment of educational theories and research in teaching learners.

Challenges

Teaching profession has been neglected for decades and no dramatic changes has been made partly on account of the following widely-held beliefs:

"Anyone can teach"

"Teacher education makes no difference"

"Teachers don't work very hard," etc. (National Commission on Teaching and America's Future, 1996, p. 11)

"He who can, does. He who cannot, teaches" (Shaw, 2008, p. 4)

Despite assuming that this maxim deeply insulted educators, Shulman (2013) admitted that this philosophy underlay certain educational policies. There existed an enormous distance between what was stated as educational goals and the realities (National Commission on Teaching and America's Future, 1996; Shulman, 2013). Notwithstanding desired goals, less than 10% of American high school students were literate in scientific skills required by the labor market, and American students were ranked near the bottom of the international tests in math and science (National Commission on Teaching and America's Future, 1996). According to the National Center for Education Statistics (2015), the U.S. ranked 40th out of 70 countries and territories participating in the 2015 PISA (Program for International Student Assessment) mathematics literacy assessment. The failure of American schooling in the past was credited to the shortage of the "know-how" and teaching resources that teachers needed to bridge the gap between the classrooms and the real world (National Commission on Teaching and America's Future, 1996, p. 6). Moreover, a non-stop growing number of population have addressed another tough challenge to American education.

The United States will need to hire 2 million teachers over the next decade to meet the demands of rapidly rising enrollments, growing retirements, and attrition that can reach 30% for beginning teachers in their initial years...And they will need to be prepared to teach an increasingly diverse group of learners to every higher standard of academic achievement. (Darling-Hammond, 1997, p. 16)

The demand for the teaching force was bolstered by the figures reported by the National Center for Education Statistics, a subdivision of the U.S. Department of Education. The number of new teachers hired in 2011 was 241,000 while that of 2024 was projected to grow up to 375,000 (National Center for Education Statistics, 2015). In the academic year of 2017-2018, the U.S. system of public elementary and secondary schools employed approximately 3.2 million full-time teachers and expended as much as \$623.5 billion (National Center for Education Statistics, 2017). With this excessive demand of teacher employment and the government's sizable financial investment, teacher preparation programs had the burden of training prospective teachers with preparedness and efficacy on the shoulders. Darling-Hammond (1997) defied how preservice programs should be structured and what pristine conditions in which teacher candidates were well-prepared to acquire the knowledge and skills that they need to educate the future labor force for the nation.

Perceptions of Qualified Teacher Preparation Programs

From Teacher Trainers' Perspectives

Studies from a large sample of 1,217 American faculty members in which 60 percent employed at universities or colleges more than eleven years, 42 percent employed at least sixteen years, and nearly 65 percent of whom were associate or full professors indicated that many teacher trainers held strong beliefs in their effort to produce better teachers for the nation, but their efforts were not fully recognized by the institutions (Goodlad, 1990). Other faculty members assumed that teacher students were not mature enough to perceive sophisticated educational issues and admitted to the programs with insufficient preparation.

Goodlad (1990) ranked four on a seven-point scale for overall teachers' beliefs in the high quality of preservice teacher education programs. Many faculty members believed that teacher-to-be

selection processes and monitoring should be taken into serious consideration. Besides, qualified teacher programs had to assist future teachers to cope with the realistic needs expressed by students. 43 percent of faculty in flagship public universities revealed their expectations for teacher training programs to educate future teachers to uplift the society. By and large, general and specialized studies, observation skills, mentored field-based experience ought to be integrated in the undergraduate education with well-defined missions and consensus-achieved objectives.

From Teacher Candidates' Perspectives

Faez and Valeo (2012) carried out a quantitative and qualitative research study investigating the perceptions of Teaching English to Speakers of Other Languages (TESOL) Teacher Education program in terms of preparedness and efficacy for their classroom practice. One-hundred-and-fifteen apprentice teachers in Canada participated in the first phase of the study: responding to online questions to express their own viewpoints on the usefulness and preparedness of the TESOL education program on a likert scale ranging from zero (i.e., "not at all prepared/effective") to ten (i.e., "extremely well prepared/effective") (Faez & Valeo, 2012, p. 457). Eight teachers amongst sixty-six volunteering teacher participants were chosen for the follow-up audiotaped interviews in person or on the phone, based on their responses to the online questionnaire at the higher end (8-10), lower end (1-3) of the scale, or showing profound differences from other participants.

Descriptive statistics such as frequency, means, standard deviation, and related-measures *t* test calculating the data collated from the questionnaire displayed a dramatic increase of 1.2 point in terms of preparedness after the TESOL teacher program with statistically significant results $t(114) = -6.7$, $p = .000$ and a medium-to-large size effect Cohen's $d = 0.624$. Most of participants admitted that they gained preparedness after completing the education program. The sense of teacher efficacy was highly appreciated by participants as they felt well prepared for classroom management ($M = 8.2$, $SD = 1.7$), material selection ($M = 8.1$, $SD = 1.6$), lesson plan design ($M = 8.0$, $SD = 1.7$). However, teacher candidates' insecure feeling was aroused by teaching English as a Second Language literacy ($M = 6.1$, $SD = 3.0$), English for Academic Purposes ($M = 6.5$, $SD = 2.7$), English in foreign context ($M = 6.6$, $SD = 2.7$). The results suggested that teacher preparatory programs should take contextualization into serious consideration to help prospective teachers tackle teaching in various circumstances (Faez & Valeo, 2012).

Qualitative analysis was utilized to code repetitive themes or patterns recognized from transcribed interviews. Three out of six interviewees scored lower after taking the TESOL education program. Explanations for the decrease included their concern about job opportunities, limited classroom experience, lack of confidence, mismatch between what taught and what took place in the real classes, and inability to adjust the knowledge from training program to the field situations (Faez & Valeo, 2012).

According to novice teacher participants, the beneficial components of the TESOL programs were order-ranked from highest to lowest as follows: field-based experience (82/115 participants), instructors' quality (38/115), program length (i.e., 4 months) (Faez & Valeo, 2012). Practicum experience gave new teachers opportunities to enter the threshold of real-world classrooms, to try out their training knowledge in authentic situations, check whether they could adjust and "survive" the realities (Faez & Valeo, 2012, p. 464). The least useful features of the programs comprised of theory knowledge about language acquisition, linguistics, and the like. Participants proposed the application of these theories rather than the language theories themselves should be stressed in the training programs.

Findings from a study of about 3,000 survey questionnaires and more than 650 interviews indicated that teachers-to-be were confident in dealing with schooling and students after taking the teacher preparation programs (Goodlad, 1990). They claimed the usefulness of the training programs lay in all preparation courses, except foundation classes. Preservice teachers rated social foundation classes with a mean of 3.8 while their rating for student teaching was 6.7 on a seven-point scale.

Goodlad (1990) rated 5.0 on a seven-point scale for students' perceptions that the education programs made a marked difference, and 6.0 on the same scale for prospective teachers' perceptions of their abilities to teach effectively in the future classrooms.

In a two-year qualitative research study, preservice secondary teachers disclosed their concerns and struggles before and after participating in student teaching (Cooper & He, 2012). Firstly, they perceived teacher roles as both the authoritarians versus facilitators in the class, transmitting content knowledge to students, and developing students' morality. Next, participants were worried about class management, how to deliver content areas effectively, and students' varied needs. Their concerns resulted from the shortage of self-confidence, their personal interests about content knowledge versus students' subject interests, their own learning experiences versus students' learning demands, self-perception of ideal teachers and the ongoing process of teacher professional development, and the ideologies and realities of teaching (Cooper & He, 2012). These grave difficulties should be addressed into the undergraduate education. Cooper and He (2012) recommended that the vision of prospective teacher programs should be revisited and that the curriculum should deepen teacher students' content knowledge, assist preservice teachers to acquire knowledge about learners, and especially uncover the realities of teaching for better teacher preparedness.

From School Administrators' Perspectives

Cheng and Cheung (2004) attempted to seek out the perceptions of school administrations who recruited teacher students graduating from the two-year full-time Certificate of Primary Education Program (CPEP) at the Hong Kong Institute of Education as well as those of the program participants to make comparison. School principals from 180 primary schools in Hong Kong employing the CPEP graduates were invited to complete questionnaire indicating how they perceived beginning teachers' performance and important professional competencies on a five-point rating scale after hiring new teachers for six months. Apprentice teachers in corresponding schools were also asked to respond to questionnaires relating to their perceptions of their own teaching performance after taking the CPEP. The findings demonstrated a high correlation between principals' and new teachers' perception of competent teaching performance. Results from the Cronbach's reliability coefficient alpha of the questionnaires showed 0.98 and 0.97 for the principals and the beginning teachers respectively.

With respect to important teacher competency items, school administrators rated 4.69 out of 5.00 for work attitude (i.e., sense of responsibility and commitment, ability to work independently, caring for students, perseverance, professional ethics, and seeking to develop oneself professionally). As for inter-personal skills, primary school principals evaluated 4.62 for novice teachers' team work ability to build rapport with colleagues/ students/ parents/ superiors. Academic and professional competency, including the use of classroom language – Cantonese, knowledge of the subject of teaching, suitable teaching methods of the subject taught, was given a score of 4.51. Other necessary skills such as analytical and problem-solving abilities, information technology competency, Chinese Language proficiency, and English Language proficiency were assessed with scores of 4.42, 4.33, 4.26, and 4.07 respectively.

Despite satisfying with novice teachers' performance, the school principals offered some suggestions for improvising teacher education programs so that new teachers would be well-performed on job-related capacities. Firstly, concerning academic and professional competency, beginning teachers ought to pay more attention to students' interest, students' varied needs (especially those with emotional and/ or behavioral problems), general classroom teaching skills, classroom management, grading, student autonomy, developing students' problem-solving skills, and their well-rounded growth. Besides, novice teachers' work attitude such as their initiative and drive should be enhanced to work more effectively as teachers.

Correlation amongst Perceptions of Qualified Teacher Training Programs Held by Teacher Trainers, Preservice Teachers, and School Administrators

As mentioned above, there exists a dearth of research studies on competent ESL teachers and qualified ESL teacher preparation from ESL learners' perspectives. As a result, this part solely discusses the correlation among perceptions from perspectives of preservice teachers, faculty, and school administrators in general education. Archival data amalgamated from the literature body implicated several attributes to qualified teacher preparation programs. In reference to academic training, both teacher trainers and teacher candidates agreed on the need of preparing prospective teachers for more extensively excavating from the content knowledge as well as mentored field experience. Furthermore, other pedagogical components such as classroom management, teachers' knowledge of diverse learners, teachers' personal interest versus students' interests, and pedagogical skills ought to be given heavier emphasis from teacher candidates and teacher recruiters' perspectives.

Exemplars of Qualified Teacher Education Programs

Myers, Price, Anderson, and Fives (2007) proposed a teacher professional development model in the pilot study implementing the Recruiting Educators through Alternative Licensure (Project REAL) funded by the grant from Transition to Teaching. In this study, college faculty members worked in collaboration with school teachers to assist secondary prospective teachers in transition phase from novice learners to professional teachers. Participants revealed through their written responses and interviews that teaching performance required a great deal of commitment in terms of planning time, undiminished enthusiasm for content area and instruction methods, and active self-involvement. John, a novice teacher in the study, expressed in his written reflection of successful instruction as follows.

The art and profession of being a teacher is not just getting up every day and standing in front of a group of high school students. The true professional prepares for each day as if he or she will be appearing before a court, going into surgery, or walking on a stage. The art is in the performance and the professionalism is in the preparation. (Myers et al., 2007, p. 23)

Preservice teachers also realized that competent teaching was an "ongoing, open-ended learning process" for all teachers (Myers et al., 2007, p. 24). Once students showed a lack of understanding, instead of repeating the same explanation in a louder voice (which many teachers tended to act this way), teachers had to come up with different clarification or presentations in a variety of contexts and examples that connected students' schemata.

I just kept talking and talking to her [the student] about this concept they were studying in history. I finally looked in her eyes and realized she didn't have a clue about what I was trying to convey. It was then that I knew I had to talk differently, rephrase, and find something she could connect with before she would understand. (Myers et al., 2007, p. 24)

The Project REAL specified that prolonged joint mentorship with frequent feedback on student teaching positively supported prospective teachers during their transition from learners to teachers. With respect to increasing the quality of teacher preparation programs, Myers et al. (2007) stressed the significance of creating "mentoring mosaics" (i.e., a network of mentorship relationships via group discussions on websites, planned chats, electronic contacts, personal meetings, etc.), expanded field experiences, and involvement of teacher candidates in the community of academics and educators (p. 18). This mentorship support was also of imperative role in reducing the number of newly-recruited teacher turnover.

Thompson and Smith (2005) introduced a beginning teacher education program entitled The Integrative Studies Major Program that well prepared preservice teachers through numerous field

experiences and beneficial mentoring provision. Participants in this program passed or gained higher scores in the Praxis II Series tests required by the State Department of Education. The implementation of the program discussed benefits from interaction with peers and university professors for support, integrated course curriculum, participation in the parent-teacher meetings as well as drawbacks such as college course workload unconnected with real practices at school site, disqualified teacher practitioners at host school, and their unfair grading manners. Of the most important attributes to the success of the teacher preparation program was the extensive field-based experiences that teacher candidates had to work and teach over 100 hours at real schools. These intensive and deeper hands-on classroom practices were perceived as the best of the Integrative Studies Major Program as expressed in an intern's explanation: "What we learn in class we go out and use the next day. Instead of it just being teacher-tell, you use that strategy to see if it will work in your classroom" (Thompson & Smith, 2005, p. 81).

Voicing considerable concern for field-based experiences, Cooper and He (2012), Darling-Hammond (1997), Faez and Valeo (2012), Myers et al. (2007), the National Commission on Teaching and America's Future (1996, 2016), Thompson and Smith (2005), and Zeichner (1981) recommended extending the length of field time at real-world schools for better teaching preparedness. Specifically, Darling-Hammond (1997) and the National Commission on Teaching and America's Future (2016) suggested that internships should be extended to "multi-year induction" and "high-quality mentoring" for teacher development (p. 21). This proposal was vital in the sense that classroom practices gave teacher students a closer look at learner diversity, authentic classroom practices, effective instructions, etc. and gradually cultivated their positive dispositions and self-reflective teaching for professional development.

Nonetheless, simply expanding field-based experience, according to Zeichner (1981), was not adequate, it was the quality resulting from the internship that counted. Experiencing a campus-based seminar at the University of Wisconsin, Zeichner (1981) developed a set of ideas making practicum qualified for students' growth as teachers. First of all, teacher students had to critically examine classroom problems and educational issues. These problems were discovered and identified by the teacher candidates themselves and then viewed from multiple perspectives, usually conflicting ones, to be aware of potential effects. Secondly, preservice teachers ought to think beyond the conventional classroom practice. Rationally thinking about classroom practice, teacher students walked out of the common paradigms and started to deeply ponder the problems. Thirdly, prospective teachers had better keep record of classroom practice history and question the embedded rationales of the institution and classroom routines. Comprehension of the current status of a school would be inadequate without understanding its historical development. To illustrate, Zeichner (1981) posed the following questions:

Why was math taught every day and social studies taught once a week?

What assumptions underlay the particular ways in which students were grouped for instruction, the ways in which time and space were utilized, the ways in which certain knowledge was selected to be taught, etc.?

Why were these decisions made? (p. 13)

The last question was the most important one as it led teacher students to scrutinize the rationales underlying what was conducted as present regular schooling routines. By taking notes of what happened in the class, teacher candidates understood the interactions and the mental processes of information implicitly under particular classroom activities or techniques. Fourthly, teachers-to-be were encouraged to explore their own perceptions, biases, and assumptions to acknowledge how these might affect their classroom actions. After taking courses at teacher education institutions, new teachers entered the classes with a wealth of pre-assumptions about education. It was of important that teacher students had to explore their own beliefs as these chiefly determined their teaching behaviors. Finally, processes of teachers as social individuals should be thoroughly investigated. Classroom routines were, indeed, affected by factors that came from a much larger context than the institutions:

social interests and structures. Zeichner (1981) suggested having teacher students to read and then discuss questions about the clinical experience outcomes, what creative classroom practices were, how these experiences shaped them as teachers. The five components of the seminar should be tied together to nurture the mind habits to reflective thoughts. Moreover, mastery of inquiry abilities was necessary to help teachers-to-be to successfully take part in the campus-based experience (Goodlad, 1990; Zeichner, 1981).

In line with Zeichner (1981), Faez and Valeo (2012) suggested that not only the length, but also the nature and roles of field-based experience ought to be reinvestigated and renovated as an integral part of teacher preparation programs. These experiences offered the chances for new teachers to connect theory to practice, allow them to adapt their acquired skills, knowledge to diverse contexts in realities. Practicum period should be structured in a way that molded students' development as teachers. In addition, Goodlad (1990) and Faez and Valeo (2012) reminded that teacher education courses should prepare prospective teachers to participate in a wide professional community, not just a future classroom. Novice teachers ought to be aware of educational issues in the field, align themselves more to the realities of classroom and employment opportunities as teachers.

Similarly, Holmes Group (1986) advised that programs of prospective teachers had to well train teachers-to-be for the knowledge of subject area, psychology of education, pedagogy, and courses beyond the boundaries of college academic classes, producing thoughtful and reflective teachers, engaging students in learning activities in a way that students performed rather than just talked about the subject matter. Additionally, since students did not go to class with "empty" heads but prior knowledge, sometimes even misconceptions, the training programs had better encompassed teaching comprehension and skills responsive to diverse learners, abilities to create efficient tutor relationship with students, and positive teacher dispositions. Lastly but importantly, all of the aforementioned aspects had to be assimilated into the clinical experiences at various school sites so that practicing teachers could apply what was taught into the real-world classrooms.

It was of important that teacher educators became aware of and understood the difficulties above faced by teacher students so that they could systematically facilitate and support prospective teachers during their transition phase to overcome these obstacles and become "teachers." Correspondingly, the National Commission on Teaching and America's Future (1996) proposed essential changes in an attempt to reduce future strenuous efforts required for teacher effectiveness. Teacher preparation education and professional development programs should be organized around suitable standards for both students and teachers. Financial support ought to be allocated for mentoring new teachers so that these apprentice teachers received constructive feedback for teaching reflections and professional development. Sustainable teacher development had to occur in collaborative planning, coaching, researching, team learning with assistance from educator communities that linked schools and universities. These activities had to become a part of day-to-day teachers' duties.

Justifiably criticized by Goodlad (1990) as neither clear missions nor coherence, teacher education programs should be restructured around standards for students' learning and teachers' teaching practices, preparing future teachers to be capable of building on students' preconceptions, dealing with these existing assumptions, and unceasingly assessing students toward the ultimate goal of profound understanding. The teacher preparedness programs had better equip prospective teachers with the skills to transfer subject matter to students' relevant domains, to develop students' metacognitive abilities, and to view themselves as learners with flexibility expertise (Bransford et al., 2000). Prospective teachers ought to demonstrate their attainment of knowledge of learners, content areas, pedagogy, and multicultural responsiveness (Darling-Hammond, 1997). Furthermore, creating the learning environment that promoted learner-centered, knowledge-centered, assessment-centered, and community-centered approaches (Bransford et al., 2000), using technology in a way that fostered rather than substituted traditional instructions to learning, and mastery of collaboration skills to connect with teacher communities, professor/educator academies would accelerate the pathway to teacher professional development (Cheng and Cheung, 2004; Darling-Hammond, 1997; Faez & Valeo, 2012). Existence of pilot study at aforementioned model schools could be counted as thousands, and

even more in the future. However, without the endorsement of policies and essential resources, these demonstration classroom practices could not be spread to be implemented on nationwide scale for educational reform (Darling-Hammond, 1997).

Lucas, Villegas, and Freedson-Gonzalez (2008) introduced Linguistically Responsive Pedagogical Practices as a guide to frame ESL teacher training programs. According to this framework, pre-service teachers are expected to know and understand the following six essential principles (Table 1).

Table 1. Essential Understandings of Second Language Learning for Linguistically Responsive Teachers

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1. Conversational language proficiency is fundamentally different from academic language proficiency (Cummins, 1981, 2000), and it can take many more years for an ELL to become fluent in the latter than in the former (Cummins, 2008).
 2. Second language learners must have access to comprehensible input that is just beyond their current level of competence (Krashen, 1982, 2003), and they must have opportunities to produce output for meaningful purposes (Swain, 1995).
 3. Social interaction in which ELLs actively participate fosters the development of conversational and academic English (Gass, 1997; Vygotsky, 1978; Wong-Fillmore & Snow, 2005).
 4. ELLs with strong native language skills are more likely to achieve parity with native-English-speaking peers than are those with weak native-language skills (Cummins, 2000; Thomas & Collier, 2002).
 5. A safe, welcoming classroom environment with minimal anxiety about performing in a second language is essential for ELLs to learn (Krashen, 2003; Pappamihel, 2002; Verplaetse & Migliacci, 2008).
 6. Explicit attention to linguistic form and function is essential to second language learning (Gass, 1997; Schlepppegrell, 2004; Swain, 1995).
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Note. ELL = English language learner.
(Lucas et al., p. 363)

In order to become a qualified ESL teacher, pre-service teachers had better be trained to deliver differentiated instruction and scaffolds for multilingualistic and multicultural students. Differentiating teaching instructions depends on learners' prior knowledge, interests, abilities, and native language. These modifications must be implemented in a manner that capitalizes on learners' cognitive ability and build on learners' strengths. Scaffolds aim to assist English learners to obtain new learning. For effective scaffolding, teacher candidates need to familiarize themselves with learners' language background, schemata, understand language demand of the educational activities, and possess the skills to utilize appropriate scaffolding strategies to help students deal with the assigned task. Not only teacher candidates, but also teacher educators in higher education institutions have to be trained to be linguistic responsive educators to fulfil the academic needs of English learner student population.

By and large, qualified teacher training courses had to establish specific objectives, beliefs and perceptions based on updated learning theory, and arduous curricula that demanded deep comprehension from learners. It was proposed that novice teachers had to be filled with considerable apprehension of learning process, stages of mental development, pedagogy, and inquiry structures (Darling-Hammond (1997). Unsuccessful teacher programs, resulted from the disharmony of the university courses and the reality at classrooms, caused difficulties for novice teachers, their lifelong learning attitudes, and ongoing professional development as educators (Bransford et al., 2000). Additionally, in initial classes, apprentice teachers tended to adopt outmoded or classical teaching methods instead of constructivism, student-centered approach because of the influence from the school environment (i.e., other classrooms, colleagues, etc.). For the purpose of producing effective teachers,

stakeholders from teacher preparation institutions to the school administrators had to cooperate to create a “continuum” of lifelong learning opportunities for teachers to grow from novices to experts (Bransford et al., 2000, p. 205).

Regarding Shaw’s negative aphorism about teaching profession, Aristotle, holding a totally different point of view from Shaw’s, was quoted as confirming “what distinguished the man who knows from the ignorant man is an ability to teach” (as cited in Shulman, 2013, p. 4). Aristotle defined teaching career by showing the relationship between teaching and knowing. Shulman (2013), on encouraging teachers to undertake inquiry to contribute to the body of education literature review and to become members of academy communities, vigorously rejected Shaw’s viewpoint on teachers and affirmed “Those who can, do, Those who understand, teach” (Shaw, 2008, p. 4).

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An Analysis on School Psychological Counselors' Dealing with Difference in Multicultural Contexts

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Abstract

Migrations caused by wars and economic depression have become one of the most important problems of Turkey. Considering multicultural structure of the country and the migration wave from Syria, it is aimed to find out how school psychological counselors perceive difference, how they cope with conflicts and how they perceive themselves with respect to multicultural competencies. For this reason, 28 school counselors were interviewed from two cities of Turkey. This study, conducted with a qualitative research design, aims to describe the current perceptions of school counselors. In order to analyze the data, content analysis was used. According to the findings; most of the counselors perceive differences as wealth. However, it is also stated that multiculturalism causes conflict. While the counselors' schools seem to have a culture that fosters and nurtures differences in general terms, it has become clear that some schools do not welcome cultural differences. A significant amount of school counselors do not regard themselves competent, while others find themselves partially competent.

Keywords: Multicultural education, difference, multicultural competency.

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Introduction

Schools have more and more immigrant students who escape from war zones around the world. These schools found themselves undertaking the responsibility to educate students with different languages and ethnic backgrounds. Besides, they have faced the mission to make students gain more complicated skills for surviving in global economies (21st Century Workforce Commission, 2000).

In the first decade of the 21st century, approximately 200 million people have migrated to the different countries from which they were born. Domestic migration is thought to be much more than this number (Global Commission of International Migration (GCIM), 2005). International migrations are one of the major results of mass population movements. These movements increase ethnic diversity in host societies. Language and culture-related differences might cause societal conflicts. Besides, immigrants have to work in particular jobs and live in particular settlement areas called ghettos. Differences between host societies and immigrant communities are politically dealt with in the context of ethnicity and race, resulting in the articulation of “foreign” and “non-citizen” labels for immigrants’ status. Especially nation states emphasizing cultural and ethnic homogeneity easily adopt policies that marginalize immigrant communities (Castles & Miller, 2003). Countries need to develop a multicultural philosophy and adopt necessary educational policies in order to minimize societal conflicts and survive in ever-changing global context.

Multiculturalism and Education

Multi-culturalism is a concept that embraces different cultures in any society. Thus, it strictly criticizes and opposes all kinds of assimilation policies inflicted by any country. It is critical that different cultures not only exist in a society, but also create their own public spaces. To be more precise, multiculturalism refers to the creation of public spaces in which communities from different racial, ethnic or religious backgrounds can interact; enrich their cultures; create new reconciliation structures that reflect their own identities (Aronowitz & Giroux, 1993; Eryaman 2008, 2009). Educational institutions play a great role in creating such spaces. Adopting a multicultural perspective in education is not only critical for the existence of different cultures, but also for raising generations that respect other cultures. Researchers supporting multicultural perspectives in education advocate that a democratic and united society becomes possible when minorities are visible in public institutions and schools. A school curriculum cannot be democratic and effective without reflecting experiences, voices and hopes of all communities in society (Aydin, 2013). Garcia (2009) asserts that multicultural education should have following goals: creating a safe, peaceful and effective learning environment for all students, raising awareness towards global issues, strengthening cultural consciousness and inter-cultural awareness, making students aware of various historical perspectives, developing critical thinking, preventing prejudice and discrimination.

Teachers and students do not share the same cultural experiences and backgrounds most of the time. But multicultural education requires many responsibilities and roles for teachers by nature. Diamond and Moore (1995) identified three major roles for teachers to create a classroom culture together: *cultural organizers*, *cultural mediators*, *orchestrators of social contexts* (p.35). As cultural organizers, teachers provide a learning environment that facilitates varied ways of knowing and welcomes cultural and ethnic diversity. Students with different cultural backgrounds can have the opportunity to express themselves in such environment. As cultural mediators, teachers create opportunities for critical dialogue and behaving to understand differences. Thus, students not only know their own culture closely, but also respect for other cultures. Lastly, teachers manage learning environment like orchestrators so that instruction aligns with differences. To do so, teachers provide various learning structures that help students to discover their own emotions, ideas and philosophies according to their own experiences and to live and work in harmony with every human being.

Fox and Gay (1995) emphasize that teachers are well aware of cultural aspects of students with different ethnic, racial, religious and social backgrounds. Teachers, sensitive to values and communication, can bridge cultural differences. Multicultural perspectives in education insist that teacher education and curriculum should become more sensitive to cultural differences and critical thinking skills. According to Banks (2001), teachers must help students become critical individuals in pluralistic democratic nation states. So, teachers need to be aware of national and global identities and identification processes of individuals. Teachers should not place themselves in a non-ethnic and non-cultural position in the classroom, which might lead them to associate “difference” with “others”. Banks (2001) suggests that teachers also see themselves as individuals with different cultural, ethnic, religious and social backgrounds. Teacher education needs to include critical analysis of concepts related to diversity such as race, ethnicity, culture and religion etc.

As a multi-cultural country, Turkey is always in need of teachers that value and appreciate different cultures. Various groups and communities with different languages, religions and cultures reside in various regions of Turkey, historically called Anatolia (Cirik, 2008). Anatolia has a multicultural structure on the grounds that it not only hosted archaic civilizations, but also it has become one of the highly popular migration points throughout the centuries. Tacoglu, Sagir and Arik (2016) point out two views that multicultural discussions about this land gather around. One acknowledges Anatolia as a melting pot that continues to host various religious, ethnic and cultural groups. Tacoglu et al. (2016) actually studied the religious and cultural identity of an Arab-Orthodox village in Turkey, which supports the first view. The other view focuses on Turkish-Islamic civilization, which is a result of migrations from middle Asia. During these migrations Turks changed their religion to Islam and affected the current social structure of Turkey. This population mass from Asia has determined the fact that Turkey’s majority is composed of Sunni Turks today. However; there are various religious, cultural and ethnic groups. According to KONDA, a research company in Turkey, (2006) residents of Turkey defined themselves as Arabs, Turks, Kurds, Zazas, Laz, Circassians, Gerogians, Chechnians, Balkan originated communities (Bosnian, Bulgarian Turks), non-muslim communities (Armenian, Greek, Jewish, Assyrian) and Asian Turks (Tatar, Azeri, Central Asian Turkish Tribes). Since its foundation, Turkish Republic has faced many problems due to its geo-political position and national and international migrations. Anatolia still is a migration point for many communities especially for the one escaping from war zones. Recent war in Syria has caused mobilization of millions of Syrians towards Turkey as one of the nearest countries. Based on the data from the United Nations High Commissioner for Refugees (UNHCR), it is calculated that approximately five million Syrian citizens are in refugee status in various countries around the world (2016). The General Directorate of Migrational Administration, a unit of the Ministry of Internal Affairs in Turkey, released a press conference in 13 August 2015. According to the unit, there were 1.905.984 registered Syrian immigrants across 81 cities and 262.134 of these immigrants were placed in 25 temporary refugee camps in 10 cities (Directorate General of Migration Management, 2015). Actual numbers are speculated to be much more. Disaster and Emergency Management Presidency (DEMP) indicated that temporary refugee camps hosted 258.333 on 12 December 2016. According to a joint research conducted by DEMP of Turkish Republic and the United Nations High Commissioner for Refugees (UNHCR), 83% of children reside in refugee camps and only 14% of those could register to a school (DEMP, 2016). The same study showed that approximately 50.000 refugee children could go to a school.

Ministry of National Education’s statistics show that only 37% of Syrian children could go to school in Turkey in 2015. Although schooling rate of Syrians go up to 60 % in 2016, this rate is quite low compared to schooling rates of Turkish students (Foundation for Political, Economic and Social Research (SETA), 2017). Transition to inclusive education without any proper preparation has affected both Turkish and Syrian students adversely. Teachers and school administrators have faced many problems because of cultural conflicts and language barriers. Considering the national educational policies disregarding multicultural education in spite of its multicultural structure, teachers and administrators are not prepared for overcoming such problems. Educators in Turkey need to gain multicultural competencies in order to provide a proper education for all. Being aware of and sensitive to cultural differences and varieties is particularly important for school psychological counselors in

both counseling and supervision processes. As a result of post-modernism, the interpretation of cultural traits and subjective realities of individuals and the affect of culture on individuals have become significant issues in psychological counseling. Acknowledged as the forth strength in psychological counseling (Pedersen, 1991), multiculturalism has resulted in an understanding that responds to cultural needs, and cultural awareness and sensitivity is defined as a multicultural competency for psychological counselors (Cetinkaya & Karairmak, 2012). Research in Turkey about multiculturalism in psychological counseling is limited and there are various aspects that needs to be examined. So far there are compilation articles of western literature, therotical articles and some research to determine multicultural competencies of counselors in Turkey. Although research on multicultural education has been rising lately, there is not enough study to examine what school psychological counselors actually think about cultural differences and their students with various backgrounds. In addition, most of the universities do not offer mandatory or selective courses related to multicultural counseling and guidance in undergraduate programs. In one study conducted by Kagnici (2011), it is shown that multicultural psychological counseling courses facilitate the multicultural counseling competencies of undergraduates. Our study aims to examine the areas that has not been yet researched. For this reason, before detecting their multicultural competencies, we aim to find out what counselors really think about cultural differences and their students from different cultures. It is also important for us to see how the counselors perceive their multicultural competencies, whether they feel incompetent about the issue or not. Considering its multicultural structure and migration waves from Syria, Syrian students are members of a minority group in classes. Due to language barrier, teachers, administrators and school psycjological counselors are having hard time to integrate those students to into academic and social life.

Regarding issues about multicultural counseling, minorities and recent war forcing millions of Syrians to migrate to our country, in this study we examine how school psychological counselors perceive difference and Syrian students, how they cope with the problems posed by cultural differences and how they perceive their own multicultural competencies and biases. To get a deeper and closer understanding, two multicultural cities (Tekirdag and Sanliurfa) from east and west of Turkey were selected. Tekirdag is a neighbour city to Edirne which has borders with Greece and Bulgaria. Sanliurfa has densely populated by Syrian refugees due to its border with Syria. Two cities are in junction of migration routes and populated by various ethnic groups. Two cities were chosen for their multicultural sturcture because it is intended to see how school psychological counselors perceive cultural differences and the presence of Syrian students and how they cope with conflicts caused by the the encounter of Turkish and Syrian Culture. This study aims to find out how school psychological counselors' working in a multicultural context – in Tekirdag and Sanliurfa- perceive difference, presence of Syrian students and their own multicultural competencies, and how they deal with difference and conflicts resulting from encounters of cultures. For this purpose, following research questions are formed by the researchers:

1. What are the multi-cultural educational backgrounds of school psychological counselors?
2. How do school psychological counselors describe the culture of their schools?
3. How do school psychological counselors perceive difference in educational settings?
4. What kind of prejudices do school psychological counselors and their colleagues have against Syrian students?
5. How do school psychological counselors cope with cultural conflicts?
6. How do school psychological counselors perceive their own multicultural competencies?

Methodology

Research Design

This study is designed as a basic qualitative research. In practical areas such as education, management, health and social services, basic qualitative research is commonly preferred. Merriam (2009) suggest that a researcher can conduct a qualitative research that does not fit in the boundaries of phenomenology, case study, grounded theory, ethnography or discourse analysis. These researchers describe the design of such studies as “basic interpretative qualitative research” (p. 22). However, they suggest using basic qualitative research as a term since all qualitative studies are interpretative by nature. Qualitative research focuses on how individuals construct reality during their interactions with the social world. In this study, we aim understand how school psychological counselors working in multi-cultural contexts construct the meaning of difference, how they perceive Syrian students’ presence in their schools and their own multicultural competencies. Crotty (2003), asserts that meaning “is not discovered, but constructed... Meanings are constructed by human beings as they engage with the world they are interpreting” (pp. 42-43). Researchers conducting a basic qualitative study try to understand (1) how people interpret their experiences, (2) how they construct their worlds, (3) what meaning they attribute their experiences (Merriam, 2009, p. 23). Since this study aims to portray meanings attributed by counselors based on their experiences and views, a basic qualitative research design is preferred.

Study Group

One important advantage of qualitative research comes from its focus on analyzing individuals or groups which experience the selected phenomenon or event in various aspects (Anderson, 1998; Creswell, 2013). Therefore, it is necessary to reach individuals or groups that can provide rich data about a specific concept. Regarding this focus, study group of the research consist of school psychological counselors working in two multicultural cities receiving both domestic and international migration. According to the statistics released by Ministry of Interior Directorate General of Migration Management (MoIDGMM), in both Tekirdag and Sanliurfa, up to 1000 illegal immigrants from countries such as Syria, Afganistan, Pakistan, Iraq, Uzbekistan and Bangladesh are documented every year. There are 2858 immigrants (other than Syrians) in Sanliurfa and 2912 immigrants in Tekirdag with residencial permit (2017). Tekirdag has been one the most domestic migration-receiving cities in Turkey. Özdemir (2008) indicates that between 1995-2000, Tekirdag was the first in the statistics of domestic migration. In 2013, Tekirdag received 45.313 domestic migration from various regions of Turkey (Metropolitan Municipality of Tekirdag, 2014). Although Sanliurfa is not among the top domestic migration-recevinig cities, it has a unique multicultural structure. Sanliurfa hosts Turks, Kurts, Arabs, Zaza, Alevi, Kirmanci among other ethnic and religious groups (Yircali, 2015).

For the purposes of the study, Tekirdag and Sanliurfa were chosen. These cities are situated in west and east of Turkey, respectively. Apart from their multicultural structures, these cities accommodate Syrian refugees. Regarding its border with Syria, Sanliurfa is the most densely populated refugee city in Turkey with its approximately 405 thousand Syrian immigrants. Tekirdag hosts approximately 6 thousand Syrians (MoIDGMM, 2017).

10 of the 28 psychological counselors who participated in the study work in the province of Sanliurfa and 18 of them work in the province of Tekirdag. Snowball sampling method was used to determine the participants. The method of snowball sampling begins with the attainment of several participants with features that enable researchers to reach their goals and continues with their suggestions about potential participants (Merriam & Tisdell, 2016). In this study, researchers preferred snowball sampling method because it provides more homogenous participant group. 22 participants are female and 6 participants are male. 21 of the participants have undergraduate degrees and 6 of them have master’s degrees in psychological guidance and counseling. 16 out of 28 school

psychological counselors have 1-5 years; five out of 28 have 6-10 years; five out of 28 have 11-15 years; two out of 28 have 16-60 years of professional experience.

Data Collection Tools

In this study, semi-structured interview questions were formulated to examine how school psychological counselors perceive cultural differences and their own multicultural competencies. The data were collected through face-to-face interviews. Some demographic information was also noted during the interviews. Interview questions were formed according to the literature (Acikalin, 2010; Aksit, Bozok & Bozok, 2015; Banks, 2001; Esen, 2009; Sue et al., 1992) related to multicultural education, multicultural counseling and migration studies. In order to contribute to credibility and authenticity of the interview questions, two specialists checked and commented on the questions. The specialists work in Educational Administration and Psychological Guidance and Counseling departments at a public university. The last version of interview questions was formed according to the comments of the specialists. The final version of the interview form included 3 demographic and 7 semi-structured questions (see Appendix 1). It took 30-40 minutes to administer the form. The interviews were recorded after the necessary permissions were taken from the participants. The interviews were done in places where the participants felt themselves comfortable.

Data Analysis

Scientific reporting of the data was carried out by using content analysis. A deductive and an inductive approach was used during content analysis. General categories (titles presented in the findings) are formed according to research questions. As stated earlier, each category/finding was generated with the literature knowledge. After data were ready to analyze, researchers leave behind any presuppositions about codes and themes. This phase of content analysis is described as inductive. Inductive content analysis includes open coding and creation of themes (Elo & Kyngäs, 2008). In this study, researchers identified the codes; gathered them under meaningful themes. Lastly, emerging themes are presented under certain categories. Data analysis process was completed after the findings were evaluated by two specialists. These specialists examined the codes, themes (categories) and asserted that they agreed with most of the findings. They also presented their suggestions. Researchers reorganized the findings according to their suggestions. The categories and themes are presented below:

Educational Status of Multicultural Guidance and Counseling (Category 1):

Undergraduate Education (Courses taken as a required course, No required or selective course, Courses taken as an elective. *Inservice Education:* Relevant inservice education, no relevant inservice education. *Personal Professional Development:* Seminars and research, No personal development activities.

Perception of Difference (Category 2): Positive contribution to socialization, Richness, Conflict, Adaptation to dominant culture.

School Culture (Category 3): Respectful Culture, Discriminating Culture, Supportive Culture, Ambiguous Culture.

Observed Teacher Prejudices against Syrian Students (Category 4): No prejudice,

Lowering overall achievement, Societal prejudices reflected upon students, Ruining societal integrity.

Counselors' Own Prejudices (Category 5): No prejudice, Societal prejudices reflected upon

students, Ruining societal integrity, Victimization.

Conflict Resolution Strategies (Category 6): Empathy Exercises, Individual guidance activities, Raising awareness to differences, Groupwork, Parent-teacher-student meetings, Hospitality, Peer mediation, Focusing on similarities, Uniformity in teacher practices.

Perceptions of Multi-cultural Competency (Category 7): Competent, partially competent, not competent.

Findings

In this part of the study, findings are presented according to research problems. Each research problem is accepted as a category. Data relevant to each question was analyzed with content analysis and presented as themes under each finding/category.

Educational Status of Multicultural Guidance and Counseling

This finding aims to reveal whether participants got any courses, trainings or education related to guidance and counseling in multicultural contexts. For this purpose, data gathered were organized under three categories: undergraduate education, inservice education activities, and personal development. Findings related to multicultural guidance and counseling education can be seen in Table 1, 2 and 3.

Table 1. Undergraduate Education

Undergraduate Education	f
Courses taken as a required course	5
No required or selective course	22
Courses taken as an elective	1

Five of the participants indicated that their undergraduate education included courses related to multicultural guidance and counseling whereas 22 participants asserted that their undergraduate education did not provide any required or selected courses related to multicultural counseling or any topic related to multiculturalism. However, one out of 28 participants said that s/he took one course as a selective from another faculty. Statements of some participants can be seen below respectively:

“We took a course called Psychological Counseling in Multicultural Settings.” (P26)

“We did not have any course related to counsel students from different ethnicities, religions or cultures.” (P7)

“I took Social Psychology course as a selective from other faculty, not my department’s course.” (P19)

Two of the 22 participants who did not take any required or selected course stated that they did gain a certain understanding about multi-cultural education although they did not take any courses. An example statement is below:

“I did not take courses, but because we were trained according to multi-culturalism, I think we developed indirectly although we didn’t get a specific course.” (P23)

Table 2. Inservice Education

Inservice education	f
Relevant inservice education	15
No relevant inservice education	13

As seen in Table 2, 13 out of 28 participants stated that they did not get any inservice training related to multicultural guidance and counseling whereas 15 of them stated otherwise. Numbers of both groups are quite close. Nearly half of the participants seem to get no relevant inservice training. An example statement is written below:

“I joined training about immigrant students. The training focused on how to get over with the problems of immigrant students of different languages and cultures.” (P26)

Table 3. Personal Professional Development

Personal Professional Development	f
Seminars and research	9
No personal development activities	19

As seen in Table 3, only nine participants indicated that they voluntarily participated in seminars and make research about multicultural guidance and counseling. 19 participants, on the other hand, admitted that they did not engage in any personal development activities and research for multicultural guidance and counseling. Two participants with interest in multicultural education explain their personal efforts as such:

“I did some research about Syrian students. I tried to find how they live in their country, what are their cultural aspects because they experience a culture shock. They find themselves in a different context. In order to approach these students appropriately, I needed to improve myself.” (P5)

“I participated in Teacher Academy trainings for immigrant students.” (P2)

Some of the participants with no personal efforts said that they had very tight working schedules and some of them reported familial responsibilities and regional disadvantages such as lack of educational seminars and courses as obstacles.

“I wanted to participate in some seminars, but due to some family issues, and because there is a lack of seminars in my district, I couldn’t.” (P1)

“I can’t make time for development due to intense guidance schedule.” (P3)

Perception of Difference

This finding aims to reveal how school psychological counselors perceive cultural, ethnic, religious difference in school environment. Counselors’ perceptions shaped by their views and experiences are categorized in Table 4.

Table 4. School Psychological Counselors’ Perceptions of Difference in Schools

Perception of Difference	f
Positive contribution to socialization	2
Richness	19
Conflict	6
Adaptation to dominant culture	1

Participants reflected their views and experiences regarding the differences in school environments. As seen in Table 4, coexistence of cultural, religious, ethnic differences was perceived as positive contribution to socialization by two participants and as cultural richness by 19 participants. However, six participants' views are gathered under 'conflict' theme. These participants think that differences causes conflicts in school and society. One participant viewed cultural differences as a process in which minority culture adapts to the dominant culture. Example statements are written below:

"I personally think that having different cultures, ethnicities and religions in school contributes to socialization. Socialization of the students." (P1)

"I think differences create richness. I mean it created richness in our school. When we managed to communicate with children (Syrian Children), we could exchange ideas about different implementations." (P14)

"We can say that Syrian students generally cause conflict in the classroom because local people don't like them at all. So students transfer their family's reactions to the classroom. These reactions are quite negative." (P2)

"Differences end in adaptation to the majority. Families from different cultural backgrounds final adopt society's way of living after an adaptation period." (P5)

Although 19 school psychological counselors say that they see differences as richness, some of them indicated that this richness can only happen under certain circumstances. According to these participants, school management and teachers should provide a peaceful environment for all students; local people should be tolerant to different cultures. Example statements of this finding are written below:

"I think differences create richness. If a peaceful environment in which students are in harmony with each other created, they can learn much about different cultures." (P23)

"Teachers should form a classroom environment in which differences are not felt as a disadvantage with the support of inclusive education. None of the students should say 'Do I belong here?' (P17)

School Culture

This finding focuses on discovering how school psychological counselors evaluate their schools' culture in terms of cultural differences. In addition to counselors' perceptions of difference, it is aimed to find out how they perceive other people's reactions to diversity and difference.

Table 5. School Psychological Counselors' Perceptions of School Culture

School Culture	f
Respectful Culture	14
Discriminating Culture	8
Supportive Culture	3
Ambiguous Culture	3

School psychological counselors speculated on their schools' culture according to their experiences (see Table 5). Findings show that 14 participants described their schools culture as respectful to cultural differences. Eight participants labeled their schools' culture as discriminating against minorities and cultural differences whereas three counselors described their culture as supportive to students of minority cultures. Three participants identified schools they work in as ambiguous in terms of culture. Some participants who described their schools' culture as respectful

said that there were not any discriminating aspects in school environment because all students were treated equally by teachers, administrators and by their peers. An example statement can be seen below:

“None of us has any disrespectful attitude towards students or our colleagues. The structure and atmosphere respects differences.” (P10)

Some participants’ statements display that certain schools have discriminating cultures. It was emphasized that discriminative behavior and attitudes can be seen among students and teachers due to family and societal pressure. Such discriminations are not only directed towards Syrian students, but also towards other minorities. A school psychological counselor explains discrimination in his/her school below:

“We, as teachers, try to prevent discrimination at school, but kids behave according to examples they see after school in their own environment. Unfortunately Gypsy students experience this lot. Maybe because of this, teachers expect less from Gypsy students. Discrimination is especially noticed in the language that students use to one another.” (P8)

According to findings, some schools are described as supportive to different cultures. Counselors indicated that students and teachers try together to help the students who are accepted as disadvantaged adapt to school and attain some level of academic achievement. A participant’s statement of such a school culture is written down:

“Teachers provide literacy support (for Syrian students); search for institutions to support students with low socio-economic status. Students embrace their disadvantaged friends more easily than adults.” (P5)

In ambiguous culture, counselors reported that there were not specific attitudes towards students of different cultures because differences were ignored as if they did not exist.

“Actually we can talk about a school culture in my school for differences. Teachers seem not to be aware of differences of children. If students are not successful, teachers quickly accept them as failures.” (P18)

Observed Teacher Prejudices Against Syrian Students

In this finding, school psychological counselors are asked to comment on teachers’ attitudes and behaviors towards Syrian students. It was aimed to find out whether teachers are prejudiced against refugee student or not in the eyes of school psychological counselors. Findings related to teacher prejudices are reported in Table 6.

Table 6. Observed Teacher Prejudices Against Syrian Students

Observed Teacher Prejudice	f
No prejudice	17
Lowering overall achievement	5
Societal prejudices reflected upon students	2
Ruining societal integrity	5

School psychological counselors reflected on whether their colleagues were prejudiced or not against Syrian students. 17 participants out of 28 indicated that they did not witness any prejudiced attitude directed to Syrian students by teachers. These participants focused on professionalism and accepted their colleagues as professionals. A participant explains this view below:

“... I think that I work with professionals who don’t behave differently to Syrian students even if they develop a negative attitude towards them in their personal lives. I think teachers in our school are professionals who set aside their own prejudices.” (P1)

12 participants acknowledged that teachers at their schools somehow display prejudiced behaviors or attitudes towards Syrian students. These prejudices are group under three themes: *lowering overall student achievement, societal prejudices reflected upon students, ruining societal integrity*. According to findings, Syrian students are thought to negatively affect other students in the class. Counselors asserted that some teachers considered Syrian students would be definitely unsuccessful and would lower classroom achievement.

“Teachers who are prejudiced react not because they come from Syria but because they are incompetent. The real source of prejudice is caused by lowered classroom achievement.” (P5)

Two participants thought that some teachers reflected societal prejudices upon Syrian students. It is generally believed that Syrian immigrants lack basic hygiene habits, so they can spread illnesses. This way of seeing is applied to all Syrians and teachers might keep a distance from Syrian students. Another feature that our society attributes to Syrians is laziness. Syrians are perceived to avoid from working. An example statement can be seen below:

“There are colleagues with prejudices. And sometimes I might have some, too. They are so lazy. Most important of all, they don’t know our language, but they don’t make an effort to learn it. I think they hide behind being refugees for getting things done or for being exempt from certain responsibilities.” (P28)

Five participants directly expressed that they do not want Syrian students in their classrooms. School psychological counselors observed that some teachers see Syrians as the breaker of societal peace. A participant’s statement displays the last theme below:

“Teachers think that they can’t form a healthy communication with Syrian students and families. They think that their way of living ruins our social integrity and affects our children negatively.” (P21)

School Psychological Counselors’ Own Prejudices

Another finding related to prejudice includes school psychological counselors’ awareness about their own prejudices against Syrian students. Table 7 displays themes related to counselors own prejudices.

Table 7. School Psychological Counselors’ Own Prejudices

Counselors’ Prejudices	f
No prejudice	19
Societal prejudices reflected upon students	5
Ruining societal integrity	3
Victimization	1

When participants asked to scrutinize their own prejudices (if there is any), 19 out of 28 indicated that they didn’t have any prejudices against Syrian students. As seen in the statement below, having no prejudice was associated with professional ethics.

“I don’t have any prejudices. Every child as a human being is valuable. So, I desire to step forward as an educator and embrace all of my students regardless of their differences.” (P2)

Some participants have admitted they have some prejudices against Syrian students. Some of them have similar features with teachers' prejudices explained previously. According to the findings, five participants are affected by societal prejudices and sometimes reflect them on students. Similar with teachers that counselors commented on in the previous finding, some counselors also think that Syrians don't follow basic hygiene rules, they are lazy, so they make their children beg on the streets. An example statement of one school psychological counselor summarizes this view:

"Actually children are accepted in our schools and society as far as possible. But because of their unhygienic and laidback lifestyles, which stems from their roots and culture, not only society but also we develop prejudices. For example, when we give them homework or other duties, they go out to beg for themselves or because of their families. I tend to think that they do not care about what we say, what we do. Then it is normal to have prejudices." (P5)

Three participants expressed that Syrians were a potential threat to our society and they ruined social structure and peace. One participant explains his/her worry about the future:

"I have prejudices that many of the Syrian students will become jihadists and terrorists in the future due to nonsense imposed to them. I declare this everywhere openly. I am realist and I have no hope for the future." (P19)

One participant stated that s/he acknowledge Syrian students as victims all the time. This participant was worried about disregarding other needs because of the prejudice that Syrian students had very traumatic lives.

"I think I might have formed an image of these students as being victims of war, traumatized and beyond help. This might be a prejudice since everywhere from refugee camps to cities there are Syrian refugees and they all have different needs. Children that seek help from me might have been heavily traumatized individual from a camp or an individual that came here 3 years before. First one might initially want to survive and the other one might need to overcome communication obstacles. Considering this, I always examine myself whether I am stereotypical or not." (P26)

Conflict Resolution Strategies

This section focuses on conflict resolution strategies used by school psychological counselors to prevent problems faced during the integration of Syrian students to our schools. Findings related to the strategies are in table 8.

Table 8. Conflict Resolution Strategies Used by School Psychological Counselors

Strategies	f
Empathy Exercises	9
Individual guidance activities	4
Raising awareness to differences (cultural, ethnical, religious etc.)	4
Groupwork	3
Parent-teacher-student meetings	3
Hospitality	2
Peer mediation	2
Focusing on similarities	1
Uniformity in teacher practices	1

26 out of 28 school psychological counselors asserted that they experienced conflicts because of the cultural differences whereas only two of them stated they didn't have any conflicts during the integration of Syrian students. Conflict resolution strategies used by counselors display varieties. According to the findings, nine participants use empathy exercises to solve the conflict in schools. Accordingly these counselors explain the situation of Syrians to all of the students. Then they try to

develop sympathy and empathy between students. Some participants said that they used case studies and creative drama activities to develop empathy.

"I play creative drama games to make students feel what it is like to be outcast and to see cultural differences as wealth. In this way, I think students acquire the situation rather than just being told." (P8)

Four participants expressed that they use individual guidance activities to solve the conflict among students while three of them preferred groupworks to do so. An example statement including both strategies can be seen below:

"I offer a student, for example, with lower self-esteem an environment to gain mor confidence by making him/her responsible for something. When I have a conflict in the class, I assign tasks to groups scuh as creating a bulletin board, project planning etc. We constantly talk about empathy to focus on problem-solving." (P7)

Four participants pointed out that they inform students with cultural, religious and etnical differences to create awareness. They aimed to form positive images in the heads of students. A statement is given below:

"I absolutely start with an explanation of the situation. I believe that theoretical understanding is necessary before the application. First I listen to students about what happened, then I explain what they should do to solve the problem." (P4)

Three school psychological counselors used parent-teacher-student meetings to solve the conflicts in the classroom and to integrate Syrian students into the school.

"I gather parents, teachers and students together. I arrange regular meetings and keep track of our progress until the problem is solved." (P7)

Another strategy to solve conflicts includes giving local students host roles. Counselors expect local students to hospitable to Syrian students and other minorities. Two participants indicated that they used this strategy.

"Actually we try to solve such problems by imposing host roles to local students in our school. It can be argued, but it really works. Communicating with the strong and healthy side is an easy and a constructive solution." (P12)

Apart from strategies shown above, one participant stressed the importance of focusing on similarities between different cultures while 1 participant stressed the uniformity among teachers' practices. Statements of both participants are given below:

"I absolutely believe that there are fields that disadvantaged groups are good at. These fileds should be highlighted. Similarities, not differences, should be stressed." (P17)

"Teachers should always consult each other. A common language should be used instead of different applications and students should be approached in uniformity." (P2)

Perceptions of Multicultural Competency

In this finding, it is aimed to find out how school psychological counselors perceive themselves in terms of multi-cultural competencies. Table 9 summarizes participants' views of multi-cultural competency.

Table 9. Perceptions of Multi-cultural Competency

Perceptions of Multi-cultural Competency	f
competent	9
partially competent	5
Not competent	14

In this part of the study, we try to find out whether counselors see themselves competent in maintaining cultural differences and counseling and guiding students of different cultures. As seen in above, nine participants acknowledge themselves in multi-cultural counseling; five participants see themselves partially competent; 14 of them find themselves incompetent in multi-cultural counseling. Example statements of this finding are written below respectively.

“I did a lot of research on this topic in college and master education. I am trying to use theory whenever possible on my students and use theory positively.” (P6)

“I have times when I don’t feel confident and competent.” (P7)

“I don’t feel competent. Firstly, although I do research, I don’t have enough information about their lives in Syria. In addition they are too young and don’t know our language. So I have a communication problem. Some parents don’t know Turkish well. They have problems in reflecting their feelings and I have problems in understanding them.” (P5)

School psychological counselors who do not consider themselves competent in multi-cultural counseling and guidance commented on topics they had troubles. According to findings, counselors seem to have serious language and communication problems with Syrian students; they think themselves incompetent in multicultural contexts; they lack theoretical and practical knowledge in multicultural counseling and guidance; they have a hard time in detecting the needs of Syrian students. There is also one school psychological counselor indicating that s/he has troubles in internalize cultural differences.

Discussion, Results and Suggestions

It has been observed that the vast majority of school psychological counselors of this study, whose professional experiences vary from 1 to 20 years, have not received training related to multicultural counseling and guidance during the undergraduate education. However, nearly half of the participants stated that they have got some experience and training in multicultural counseling via in-service education after they have been employed in the profession. The trainings taken with individual efforts have been preferred by a very small number of consultants. When cultural structures of schools in which these counselors work are examined, only five teachers express that they work in a school where only one culture is dominant. The schools our participants work have one significant aspect in common apart from their multicultural structures: providing education to Syrian students.

All of the findings indicated above highlights the importance of multicultural counseling and attitudes of counselors displayed in the presence of cultural, ethnic, religious and language-related differences. One of the main purposes of this study is to elicit the perceptions of school psychological counselors towards cultural, ethnic, religious and language-related differences. The data have shown that a large majority of school psychological counselors perceive differences as wealth. In addition, they have stated that cultural differences contribute positively to socialization and improve adaptation skills. However, it turns out that for some participants cultural differences are not perceived as a positive feature. In fact they are perceived to be a cause for conflict. Esen (2009), in a study focusing on classroom teachers' perceptions of difference, shows that some teachers are insensitive to the differences they have in class; some have reduced cultural, religious or ethnic differences purely to individual differences; some of them are sensitive to differences. Similar to this study conducted in Turkey, school psychological counselors seem to have negative views.

When school psychological counselors were asked to assess cultural aspects of their schools, it turned out that most schools had a culture that respects and supports cultural differences. However, some of the counselors perceived their schools' culture as discriminating. It was stated that discrimination was displayed towards both Syrian students and students of other minorities. The counselors of these schools seemed to have hard time in practicing proper counseling and guidance. Participants expressed that some colleagues (teachers in their schools) have prejudices against Syrian students. According to these statements, it was thought that Syrian students would reduce total classroom achievement. Besides, it is striking that the negative judgments regarding Syrian society were attributed to the students. Some teachers were reported to be thoughtful and worried that Syrian students would ruin the societal peace and order. Castles and Miller (2003) suggest that the behavior patterns of immigrant communities may differ. These researchers believe that refugees may receive harsh reactions from some parts of the home society; multidimensional changes can occur in home society both socially and economically as a result of migrations; the local culture can perceive the refugees as a threat of trust because of the changes in living conditions; refugees might be perceived to take over the labour market and to overload social services. In addition, people of home country might see refugees as the source of sickness and crime. Similarly, Erdoğan (2014), Oytun and Gundogar (2015), Zencir and Davas (2014) found that there were economic concerns due to the fact that refugees work for much less wages; that refugees were acknowledged as the source of sickness and crime; there were a feeling distrust against refugees in our country. Topkaya and Akdag (2016) reached similar findings in the study they interviewed with teacher candidates. According to this study, teacher candidates had worries about teaching Syrian students because they considered that Syrians are too crowded; they beg; they pollute the environment and disturb the traffic; they ruin the urban fabric. In our study, similarly schools psychological counselors asserted that teachers in their schools regard Syrian refugees as lacking basic hygiene rules and transmitting diseases. They were also observed to think that Syrian students would not make any effort to study because they come from a society in which laziness is credited.

Basbay and Aktas (2010) and Moodley (2007) stress the significance of multicultural competencies for occupations that provide support services. It is a crucial need to develop competencies in people working in the fields such as applied psychology, social services, psychological counseling and guidance and education. Multicultural counseling and guidance is especially vital for school psychological counselors. Regarding the Syrian children in our country, who experienced a war trauma, research in multicultural guidance and counseling must be examined for developing competent school psychological counselors in education faculties. Sue, Arredondo and McDavis (1992), describe three types of basic competencies that cross-cultural counselors should have: (a) being aware of one's own values, assumptions and prejudices (b) appreciating the world views of counselees being member of different cultures (c) applying various intervention methods and techniques. In our study, school psychological counselors indicated that there were conflicts in schools due to cultural, ethnic and language differences. Therefore they used a variety of methods to handle and manage conflicts. Schools psychological counselors seem to have mainly used empathy exercises and developing awareness about differences.

Psychological counselors need to be aware of their own cultural values, beliefs and prejudices (Ratts, Singh, Nassar-McMillan, Butler & McCullough, 2016). This internal awareness help schools psychological counselors to understand the world views of their students and to see the relation between culture, power, privilege, oppression and counseling. This emphasis on awareness is utmost importance for multicultural counseling.

Most of the school psychological counselors who participated in this study stated that they did not have any prejudices against Syrian students, and argued that the professional ethics would not allow any prejudice. However, some counselors stated that they were transferring prejudices about Syrian society to Syrian students, just as the teachers they evaluated. Only one advisor emphasized that his/her seeing Syrian students as victims is also a prejudice. Ratts et al. (2016), emphasize that psychological counselors should give social justice counseling. By starting this point of view, Ratts and the associates identified multicultural and social justice counseling competencies. According to

their study, psychological counselors should internalize differences and multiculturalism concept in counselor-counselee relationship; comprehend negative effects of oppression on mental health and well-being; realize individuals in the context of social environment; integrate various counseling methods with social justice advocacy. In our study, none of the school psychological counselors mention any method regarding social justice and activism although they experienced conflicts and used various methods to manage those conflicts.

After conducting multiple case studies, Sanders, Haselden, and Moss (2014) suggested using critical reflection and developing self-awareness about beliefs, perceptions and practice in order to prepare candidate teachers for cultural differences. Cook, Krell, Hayden, Gracia and Denitzio (2016) have examined the apprenticeship experience diaries of 16 psychological counselor candidates. According to the candidates' diaries; the qualifications required for multicultural counseling are listed as 'open-mindedness, believing that all students can learn, desire to understand disadvantaged groups, being open to diversity'. Another significant finding of this study indicates that psychological counselors should develop awareness towards values, privileges and prejudice. Accordingly, psychological counselors need to be well aware of the concepts of ethnicity, gender and privilege; to detect how the culture, in which they grow up, affect them; to be knowledgeable about their students' culture; to be critical about their own prejudices; to be open to appreciate other cultures; to notice educational injustice and inequality.

In our study, most of the school psychological counselors regard themselves incompetent in multicultural contexts. Particularly some counselors think that they could not offer proper counseling for Syrian students because of language barrier. They stress that speaking different languages intervene with their counseling practices. Similarly, Uzun and Butun (2016) indicated that pre-school teachers experienced same language problem. To clarify, pre-school teachers expressed that they could not communicate with Syrian children and help them communicate with their peers. As result these children seem to become isolated. Not being able to overcome language problem causes teachers to feel that they strive alone and cannot succeed. Apart from language barrier, our study showed that Syrian families cannot provide proper food, accommodation, and sanitary needs of children. As a result, other families, children, teachers and even some school psychological counselors behave to Syrian students and think about them in a biased way.

Syrians are in temporary protected status in Turkey. Despite this designation, they have a lot of similar features with the people accepted as universal refugees. Accordingly, Syrians are different from Turkish citizens in that they have a different language, culture and lifestyle. Most of the Syrians in our country come from a low socio-economic status; most of the population having settled in Turkey consists of women and children (DEMP, 2013; 2014; Kanat & Ustun, 2015; Oytun & Gundogar, 2015). Even for a small percentage of Syrian children, sustainable support is vital to combat the lasting effects of trauma and to assist families in the resettlement process. Sirin and Rogers-Sirin (2015), advise policy makers and practitioners to ensure that Syrian refugee children have access to high quality mental health services, which also includes special education. Even though all Syrian children are entitled to education in our country which is desely populated by Syrian refugees, it can not be said that this education is facilitative and effective for them. We need to see that school psychological counselors and their professional activities are vital for reducing the traumatic effects of of war and resettlement process of Syrians. Sirin and Rogers-Sirin (2016) offer some suggestions for the education of Syrian children. According to these researchers, the following measures should be taken:

- Providing multi-faceted, culturally sensitive services in various contexts such as schools, community centers, health centers and centers for Mother and Child Health and Family Planning.
- Training teachers to recognize the signs of trauma and to ensure that children cope with trauma.
- Helping students to adapt to the new culture without breaking their ties with Syria culture.

- Ensure that those working with Syrian refugees know their work on refugee needs.

Our findings and other studies on the field show that school psychological counselors should be sensitive to different cultures and intervene effectively in cultural conflicts. For this to happen, it is proposed that counseling and guidance education in faculties should be re-organized in the context of multiculturalism, and that teachers should focus on their working skills in multicultural settings.

Findings show that teachers feel themselves inadequate regarding multicultural competencies. They also think that they have low readiness level for multicultural contexts, especially in the case of Syrian students. In order to avoid potential problems in the future, necessary measures should be taken at the level of national curriculum of education faculties and at the level of in-service training activities designed by Ministry of National Education. All members of occupations and units that provide counseling services should be mobilized for the education of pschool psychological counselors and teacher. School psychologists need to have sufficient theoretical and practical equipment to exercise their professions in multicultural settings.

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APPENDIX 1

INTERVIEW FORM

1. Gender:

2. Education:

3. Years of experience as a School Psychological Counselor:

4. Regarding multicultural counseling and guidance,

a) What kind of courses or trainings did you take in college education?

b) What kind of courses or trainings did you take in in-service education programs of Ministry of National Education?

c) What kind of professional development activities did you attend?

5. How do you regard ethnical, religious or cultural differences at school?

6. Can describe your school's culture regarding its approach to people of different cultures?

7. Can you tell the prejudices of teachers working in your school against Syrian students based on your observations?

8. What kind of prejudices do you think you have against Syrian students?

9. How do you cope with conflicts caused by cultural differences among students?

10. How do you find your multicultural competencies regarding maintaining cultural differences?

Early Childhood Turkish Children's Attitudes toward Science

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Abstract

The purpose of the study was to examine and describe the attitudes of Turkish early childhood children in science. This study explored the causal factors that influence children's attitudes toward science such as teachers' years of teaching experiences, frequency of teaching science in a week, and teachers' teaching style. Turkish children (N=44) who live in the United States and engage in early childhood classroom involved into the study. Preschool teachers who had Turkish children in their classroom completed survey for giving information about their Turkish children experiences in their science teaching activities. The Child's Attitude Toward Science (CATS) survey which developed by researchers was used while collecting data. The results showed that Turkish children have positive attitudes towards science especially in Life Science Topics. The results also showed that there were statistically significant relationships between Turkish children's attitudes towards science and their teachers years of teaching experiences and frequency of teaching science in a week. The results also showed that Turkish children's success in other activities (language, art, math) related with their attitudes towards science. The findings also showed that using text books and hands on activities during science education also had relationship with children's attitudes towards science.

Keywords: Early childhood education, science, attitude, Turkish children.

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Introduction

Quality education in the 21st century is dependent on a well-educated workforce. To that end, education has become globally focused with achievement test scores in literacy, math and science being compared across developing countries. The Program for International Students Assessment (PISA) showed that “In 2009, the percentage of high-performing 15-year-olds in the United States was higher in reading literacy, lower in mathematics literacy, and not measurably different in science literacy than the respective percentages in the OECD countries on average” (Aud, et al., 2012, p.68). That is why in the US; early childhood education has emerged as an important factor in efforts to improve education.

Researchers define early childhood as pre-primary programs including, preschool, and nursery school. In the United States, the effort to close the achievement gap is huge and early childhood is seen as an important tool for teachers who are concerned about children who come from disadvantaged life experiences such as; poverty, being English Language Learners (ELL) and other factors that can impact students’ educational success. For example, students from low income families enter kindergarten with lower scores on tests of readiness (Coppie & Bredekamp, 2009). Researchers also stated that “Concerns over the persistence of achievement gaps between subgroups are part of a larger concern about lagging students’ achievement in the United States and its impact on American economic competitiveness in an increasingly global economy” (Coppie & Bredekamp, 2009, p. 2). In 2001, the No Child Left Behind Act (NCLB) dictated that all children have equal opportunities in their education. This law covered students who are Economically Disadvantaged (E.D.), Not Economically Disadvantaged (N.E.D.), racial and ethnic minorities (White, Black, Hispanic, American-Indian, Asian, Pacific Islander, Two or More Races...etc.), special needs, English Language Learners (ELL), and Limited English Proficiency (L.E.P.).

Kamay and Kaşker (2006) identified that early childhood is a great time when children improve important life skills and scientific skills when provided with quality experiences. In these years, experiences help children learn basic skills in cognitive and social areas. Children can use these new skills in their daily life and build on them for the future. Developing these skills in the early years forms the foundation for learning new academic conceptions in later years. Helping children to improve science skills supports children not only to manage the events in daily life, but also helps them in future science and mathematics studies (Lind, 2000). However, early care and education focused on children’s social, emotional, and physical development for many years. Children rarely focused on scientific skills and experiences. This was a big problem for teachers when they taught science to children because they tend to be uncomfortable with science instruction and had weak science backgrounds (Worth, 2010).

Science teaching in early childhood education does not mean teaching scientific knowledge, but rather giving opportunities children to learn this information by doing hands on activities as they make sense of their world (Aktaş, 2002). One common strategy to provide hands on experiences is the use of science centers which can be created for individual and group activities. Others stated that science education needs to be more than a place in the classroom or a set of materials. It needs to be a mind-set that encourages children’s curiosity (Brenneman, Boyd, & Frede, 2009). Researchers identified that it is important for science to be taught in early childhood years so that pupils have positive attitudes toward mathematics and science. These positive attitudes affect children’s future success in and out of school performance (Brenneman et al., (2009).

Furthermore, early childhood education gives rich opportunities to children for early thinking and learning. With a rich environment, guided by skillful teachers, children’s experiences in the early years can have significant impact on their later educational achievement (Worth, 2010). That is why science may be a particularly important domain in early childhood, serving not only to build a basis for future scientific understanding but also to build important skills and attitudes for learning. Jones and Courtney (2002) stated in their research that early childhood classrooms are appropriate places for

children to make scientific discoveries. That is why preschool teachers can create their classrooms for everyday experiences because children like to explore how seeds are planted, living animals interact, and objects work.

According to the Houte, DeSmet, and Devliger (2012), teacher education programs show some differences from country to country and these differences affect teachers' work in preschool and primary classroom. Karamustafaoğlu and Kandaz (2006) stated that teachers should encourage students to participate to science activities. Teachers should give chances for students to do basic level of science experiments that incorporate the active learning process. During this time, with using different teaching styles depending on the subjects, teachers can help to improve students' interest toward science and nature. Yet, Tu (2006) investigated 20 preschool science environments for three to five-year-old children in 13 Midwestern child care centers. The study showed that half of the preschool classroom had science area. The activities that the preschool teachers engaged were mostly unrelated to science activities (86.8%), 4.5% of the activities were related to formal science teaching, and 8.8% of the activities were related to informal science teaching. Tu (2006) suggested that teachers need to use more on their own practice and utilize science tools for improving science teaching in preschool classrooms.

Bryan and Atwater (2002) studied teachers' beliefs and their impact on science teaching and learning. Researchers discussed three core ideas for deciding what teachers believe in their research: "(a) student characteristics; (b) external influences on learning; and (c) appropriate teacher responses to diversity" (p.827). Researchers decided that to know teachers' beliefs about teaching science in classroom is a significant part when teaching science to ELL students. Yet, there were limited studies about students' socioeconomic conditions, racial, different ethnic minorities and their learning science in in early childhood education.

The main purpose of this study is to investigate and describe the attitudes of Turkish children toward science. The study also explores the causal factors that influence children's attitudes toward science. Based on this purpose research question is: "What are the factors (such as successes in other activities, teachers' years of teaching experiences, frequency of using science activities in a week, time of using science in a day, qualities of science centers/areas in classroom, teachers' teaching style(s) in science activities) that affect Turkish children's attitudes towards science?"

Methods

Design of the Study

In the current study, survey method, one of the quantitative methods, was used for collecting children's abilities, interests, and attitudes toward science and science topics. When the research survey was created, science topics and Ohio State's science standards were profited by the researcher. Child's Attitude Toward Science (CATS) survey, as developed by researcher, was used to collect teachers' opinion about their Turkish children's attitudes towards science in early childhood education.

Participants

Eligibility for participation was limited to children who were in preschool, kindergarten and came from Turkish family background. In the current study, Turkish children who were in two preschools during fall semester of 2012, and both located in Ohio, were investigated for this research. These schools were selected for the current study because both schools have reported large Turkish student populations. Preschool teachers completed survey for giving information about their Turkish children's experiences in their science teaching activities. Teachers reported 44 surveys for their only Turkish children in preschool and kindergarten grades. Turkish children, who are also called Meskhetian (Ahiskan) Turks, must speak English at school and speak Turkish and Russian at home.

Instrument and Data Analyze

The Child's Attitudes Toward Science (CATS) survey was developed by the researcher. There were two parts in the survey. The first part inquired into the child's attitudes toward science topics and their demographic information. In first part, there are 24 items. In the first half of this part, there are 5 items about the child's age, gender, learning style (linguistic, logistic, physical, visual), success in science process (observing, measuring, classifying) and success in other activities (language, math, art). For success in science process and in other activities, items were evaluated as "one of the worst", "below average", "average", "above average", "one of the best". In the second half of the first part, there are the other nineteen items were comprised by three main subtopics (Earth and Space Science, Life Science, and Physical Science). The second half was related to the child's interest in the selected topic. This half also was used a 6-point Likert scale. Each item was evaluated with "not observed", "never", "rarely", "sometimes", "most of the time", and "always".

Questions were categorized with their interest topics. Earth and Space Science was covered by questions 1 through 6. These 6 questions were related to Earth and Space Science topics such as natural events, day and night patterns, and law of gravity. Life Science was covered by questions 7 through 13. These 7 questions were related to life science topics such as food chain, habitats, animals, plant. Physical Science was covered by questions 14 through 19. These 6 questions were about physical science topics such as states of matter, forces and motions, blocks, magnets, and light.

In the teacher's part of the survey was comprised by 7 items about teacher and curriculum. Items were reported Turkish children's size in class, teachers experience with Turkish children, frequency of teaching science activities, and time in science activities, teaching methods, qualities of science center or area, and materials in science areas. Qualities of science center/area were evaluated with "very poor", "poor", "fair", "good", and "very good". Time of teaching science activities scale was evaluated with "morning", "mid-morning", "afternoon", and "mid-afternoon".

The validity of the survey was tested in terms of content and construct validity. The content of validity was evaluated by two areas; early childhood education and science education. Validity of survey was tested by professionals. After survey was created, the survey was delivered to 24 undergrad students who were studying in Early Childhood Education at the University of Dayton. The pilot test was used for determining the reliability of survey. Item total correlations and Cronbach alpha values are obtained. The results of reliability test showed a Cronbach alpha of .71 for the entire instrument.

A one-way ANOVA was used with a Tukey Post-Hoc to examine the relationships of Turkish children's attitudes towards science on the other six variables (such as successes in other activities, teachers' years of teaching experiences, frequency of using science activities in a week, time of using science in a day, qualities of science centers/areas in classroom, teachers' teaching style(s) in science activities). The level of significance was set at .05.

Results

The researcher was investigating relationships between Turkish children's attitudes towards science and their successes in other activities, teachers' years of teaching experiences, frequency of using science activities in a week, time of using science in a day, qualities of science centers/areas in classroom, teachers' teaching style(s) in science activities.

Table 1. Frequency and percentages for children's attitudes toward science and science areas

Valids	ESS		LS		PS		COMP	
	f	%	f	%	f	%	f	%
Not observed	102	39	89	29	86	33	277	33
Never	5	2	6	2	6	2	17	2
Rarely	19	3	33	3	31	12	83	10
Sometimes	67	25	67	22	48	18	182	22
Most of time	39	15	66	21	58	22	163	19
Always	32	12	47	15	35	13	114	14

Table 1 displays frequency and percentages for children's attitudes towards science and science areas. In Table 1, data were coded as ESS (Earth and Space Science), LS (Life Science), PS (Physical Science), and COMP for all these areas total numbers. The classification "Not observed" means didn't observed (does not mean shows anything or low attitudes). "Always" means "child has very positive attitudes" and "Never" means "child does not have any attitudes" toward that science topic. Teachers reported 19 attitudes for a specific child. That mean is 836 attitudes were reported by teachers for 44 children. The majority 33 % (n=277) of children's attitudes in whole science areas had not observed by teachers. For observable attitudes: "Never", "Rarely", "Sometimes", "Most of time", and "Always", the majority 22 % (n=182) of children's attitudes in whole science areas, "Sometimes" was selected by teachers for describing Turkish children attitudes toward science. According to Table 1, Turkish children had very positive attitudes toward LS. They showed positive attitudes toward PS and ESS.

Table 2. Results of ANOVA scores of children' attitudes towards science according their success in other activities

Valids	N	M	SD	df	F	p
One of the worst	1	17.00	.	4, 39	3.35	.01
Below average	18	47.50	18.19			
Average	13	57.92	18.49			
Above average	9	57.77	17.88			
One of the best	3	83.00	32.90			

*p<.05

To test the relationship between Turkish children's success in other activities (language, art, math), a one-way ANOVA was run. The results of the one-way ANOVA are displayed in Table 2. The results [F (4,39) = 3.35, p<.05] revealed that Turkish children success in other activities (language, art, math) had statistically significant effect on children' attitudes towards science. According to the findings, if a child is successful in other activities (language, art, and math), he/she may show positive attitudes towards science in early childhood education.

Table 3. Results of ANOVA scores according to teachers' years of teaching experience with Turkish children

Valids	N	M	SD	df	F	p
Less than 6 month	14	43.14	4.80	2, 41	64.65	.00
3-4 years	23	48.56	13.10			
More than 4 years	7	96.14	10.00			

*p<.05

In order to investigate the relationship between Turkish children teacher's years of teaching experience and their attitudes towards science one-way ANOVA was run. The findings of the one-way ANOVA are displayed in Table 3. According to the ANOVA results [$F(2,41) = 64.65$, $p < .05$] teachers' years of teaching experience with Turkish children had a statistically significant relationship with children's attitudes towards science. As presented in the data, if teacher has long time experiences with Turkish children, his/her Turkish children show positive attitudes toward science.

Table 4. Results of ANOVA scores of children's attitudes toward science according frequency of using science activities in a week

Valids	N	M	SD	df	F	p
Less than 2 times	8	60.75	1.58	3, 40	4.07	.01
3-4 times	9	58.77	33.42			
5-6 times	19	43.42	4.14			
More than 7 times	8	69.25	28.33			

* $p < .05$

A One-way ANOVA was run for examining the relationship between frequency of using science activities in a week and Turkish children's attitudes towards science in early childhood education. The results of the one way ANOVA are show in Table 4. ANOVA results [$F(3, 40) = 4.07$, $p < .05$] showed that in early childhood education, frequency of using science activities had a statistically significant relationship with Turkish children's attitudes towards science.

Table 5. Results of ANOVA scores of children's attitudes toward science according time of using science activities in a day

Valids	N	M	SD	df	F	p
Morning	14	43.14	4.80	3, 40	3.31	.02
Mid-morning	9	68.33	24.59			
Afternoon	8	60.75	1.58			
Mid-afternoon	13	53.00	29.44			

* $p < .05$

In order to investigate the relationship between times of using science in a day and Turkish children's attitudes toward science in early childhood education, a one-way ANOVA was run. The results of the ANOVA are presented in Table 5. The results [$F(3, 40) = 3.31$, $p < .05$] revealed that in early childhood education, the time of day children engaged in science activities had a statistically significant relationship with children's attitudes toward science. The data showed that children had most interested with science during mid-morning.

Table 6. Results of ANOVA scores of children's attitudes toward science according qualities of science centers/areas

Valids	N	M	SD	df	F	p
Very poor	5	32.40	13.12	3, 40	12.63	.00
Poor	5	44.20	1.09			
Fair	22	49.54	9.50			
Good	12	76.75	25.91			

* $p < .05$

To investigate the relationship between qualities of science centers/areas and Turkish children's attitudes toward science, one-way ANOVA was used. The results of the ANOVA are shown in Table 6. The findings [$F(3, 40) = 12.630$, $p < .05$] showed that quality of science centers/areas had a

statistically significant relationship with Turkish children's attitudes towards science in early childhood education. According to the results, if the classroom had good science centers/areas, Turkish children showed positive attitudes toward science in early childhood.

Table 7. Results of ANOVA scores of children attitudes toward science according teaching style(s) (N = 44)

Valids	N	M	SD	df	F	p
Hands on Activities	14	59.71	22.73	3, 40	9.32	.00
Play Based Curriculum	14	43.14	4.80			
Text Books	11	72.00	19.31			
Others	5	32.40	13.12			

*p<.05

In order to investigate the relationship between Turkish children teachers' teaching style and their attitudes toward science in early childhood, an one-way ANOVA was used. The results of the ANOVA are presented in Table 7. The results of ANOVA [$F(3, 40) = 9.32, p < .05$] showed that teachers' teaching style had a statistically significant relationship with Turkish children's attitudes towards science in early education. According to the findings, while teaching science, using text books in classroom had a positive effect on Turkish children's attitudes toward science in early ages. The results also showed that hands on activities are as influential as text books.

Conclusions, Discussions and Recommendations

The results demonstrated that Turkish children had good attitudes towards science and science topics such as Earth and Space Science, Life Science, and Physical Science in preschools and kindergartens. Data results showed that Turkish children were mostly interested in Life Science topics when it compared with other scientific topics. In addition, Turkish children had interested in also Physical Science and Earth and Space Science topics in their preschool and kindergarten classrooms.

Bryan and Atwater (2002) stated that external factors that influence children's science learning. Gelman and Brenneman (2004) concluded that for the improving scientific skills, children need to connect their experiences which they learn during communication activities, literacy and art activities, and math activities. For example, during language and art activities, children may learn how they can represent their knowledge by the writing or drawing what they want to say. During mathematic activities in early childhood classroom, children may learn numbers, figures, and calculations which also related with science (Gelman & Brenneman, 2004). Their success in these activities may impact also their learning science. In the current study, it is found that children's success in other activities such as language, art, mathematic had related with their learning science. The data results showed that, if Turkish children were success in other activities, it is positively impacts their learning in science. It is probably related with how they represent themselves in classroom. In addition, teachers of classroom had chance to know about Turkish children's skills in science and other activities. That is why, they may have more chances to do science activities due to their children's interested. The current study also suggested to importance of integrating science with other contents in early childhood.

Culture has been studied in science education research based on children's socioeconomic conditions, racial, and different ethnic minorities. However, literature review show that there were limited studies in early childhood education. According to the Bryan and Atwater (2002) one of the main factor was teacher that influence students' learning. In early childhood, children use ideas, directions, and descriptions orally or in written forms such as pictures, maps, graphs, and reports when they explain their scientific explorations. Communicating is important for children to explain information and understand what they mean (Lind, 1996). In education, teachers should know their children's communications skills when they interact with them. Consistent with Gillette (1998) about the importance of teachers being at least culturally sensitiveness in education. The current study

showed that if teachers work on extended period of time with Turkish children, their Turkish children show positive performances when learning science. On the other hand, understanding Turkish children's skills, abilities, and interests by the communicating, teachers help their ELL children's learning science in the early years. Spending more time with one cultural group in classroom, it may help to classroom teachers to get know more about that cultural expects from teachers and education systems.

Interestingly, this study appears to be a first in the field with investigated best time of day for teaching science and frequency of teaching science in a week for multicultural groups. These topics are investigated for trying to find the best time for teaching science to Turkish children in early childhood education. This idea comes from readiness to learn science phenomena. It is found that, teachers should give science activities at least 5-6 times in a week. This helped their Turkish children while learning and getting positive attitudes towards science. Worth (2010) stated that if teachers don't give time to science activities regularly, their children's learning about scientific skills may reduce or lost. Likewise, Tu (2006) stated that most of teaching in early childhood classroom were not related with science. That is why children may not have more chances to improve their scientific abilities. Karamustafaoğlu and Kandaz (2006) suggested that teachers should give chances for students to do basic level of science experiments that incorporate the active learning process. It is found in the current study that teachers should do that at least 5-6 times in a week if they want to help their children on learning science. In addition, the current study also found that when teachers give science activities in the mid-morning time, Turkish children's concentrations can be high for learning that science topics. Similarly, Worth (2010) also suggested that teachers may give time in morning and it can be circling routine while helping children for good science investigation. It should be 20 or 30 minutes activities that engage children into science during a week. In addition, teachers should give enough time to their children for documenting and science talking (Worth, 2010).

There was no doubt about quality of science centers/areas and its positive relationship with child development (Jones & Courtney, 2002; Tu, 2006; Worth, 2010). Well designed science centers are important for individual and/or small groups activities of children to learn science. Furthermore, early childhood classrooms are appropriate places for children to make scientific discoveries. That is why preschool teachers should create their classrooms for everyday experiences because children like to explore how seeds are planted, living animals interact, and objects work (Jones and Courtney, 2002; Tu, 2006). Moreover, teachers should provide richer and more challenging environments and tools for children's learning science. In these environments, children may have more experiences in science centers by the guided skillful teachers (Worth, 2010). Likewise, the current study reported the importance of qualities of science centers/areas for Turkish children's attitudes regarding science. On the other hand, Turkish children may have chances to built on their scientific skills and improve their learning by the creating wealthy and more dynamic centers.

Felder and Henriques (1995) suggested that students learning style(s) and teachers' teaching styles have unfortunate effects on the quality of the students' learning and their attitudes regarding subject. Similarly, findings of current study presented the importance of instructors' teaching style(s) on Turkish children' attitudes toward science. It is found that, using texts books and hands on activities had positive impacts on children's learning science and engaging science activities in classrooms. Likewise, Brenneman and Louro (2008) investigated the importance of using science journals in preschool as science tools for supporting and assessing child's learning science and science literacy. In addition, researchers stated science journals give more chances to children to make observation and improve their scientific skills (Brenneman & Louro, 2008). In another study, Foley and McPhee (2008) found that students who engaged in hands on classes had a better chance of understanding the nature of science than students who engaged in text book classes. Similar results were stated also in Varley, Murphy and Veale (2008) studies. Researchers stated 87% of pupils who were in the case study questionnaire and 78% of pupils who were in the survey showed extremely positive attitudes regarding hands on science. However, Pine et al. (2006) reported that students who engaged in teaching science with hands on classes had no significant differences in their science knowledge and skills as compared to students who engaged in text books classes. The current study

reported Turkish children who engaged in using text book for teaching science showed more positive attitudes regarding science as compared to Turkish children who engaged in using hands on activities for teaching science in early childhood education.

For further studies, current study focused on the Turkish children's attitudes towards science in early childhood education. Findings showed Turkish children were interested in science especially in Life Science areas. For further researchers who are interested in science education in early childhood, considerations should be given to other subgroups, such as African-American, Hispanic American, European-American, and Asian-American children's interests in science in the USA. In addition, this study investigated some external effects on learning science such as qualification of science centers/areas, teaching experience, teaching styles, frequency of using science activities, and ideal time of teaching science. Teaching experience had a positive relationship with Turkish children's attitudes towards science. Teachers should try to know more about their students' skills who come from different cultural backgrounds during their teachers' experiences.

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Examining the Prospective English Teachers' Pedagogical Content Knowledge: Canakkale Case*

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Abstract

The study aims to investigate the pedagogical content knowledge of the prospective language teachers in the English Language Teaching Department of Canakkale Onsekiz Mart University. The mixed research method, sequential explanatory research design was used to collect and analyze the data. Quantitative data obtained from 127 prospective teachers via the questionnaire were analyzed using descriptive and inferential statistics. The researchers made use of content analysis in order to analyze the qualitative data obtained from document analysis, observation procedures, and interviews of the three participants. Themes and codes were created from the transcriptions of the qualitative data collection instruments to conduct both within-case and cross-case analyses aiming to explain the quantitative results. Results reveal that prospective teachers of English believe they do not have required knowledge of the language they teach though they see themselves competent in other knowledge domains. Though they believed they would use communicative methods to language teaching, they preferred using grammar translation method while presenting the new vocabulary items. What they believed they could do and what they actually did were also different considering their knowledge on planning lessons, knowledge of their learners, and knowledge on assessment. Last but not least, their knowledge domain was shaped not only by the teaching experience they had during the Community Service Practices Course and the private courses they had given, but also by pre-service teacher education. Bearing these results in mind, some implications for teacher education were provided at the end of the study.

Keywords: EFL Teachers' Knowledge Base, Pedagogical Content Knowledge, Mixed Research Method, Sequential Explanatory Research Design

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Introduction

Recently, with the advent of technology, the need for international communication has increased to a great extent. Thus, teaching and learning foreign languages have become really important in most countries in the world. There have also been many innovations regarding foreign language education in Turkey. EFL teachers who serve in state schools should have command of a range of skills, competencies, and knowledge to meet the needs of the students. First and foremost, EFL teachers need to have extensive knowledge of the subject matter. That is to say, they should be equipped with a good command of English, have knowledge about language use, and the theoretical background of the field. Even though language mastery is an important qualification, it is not enough for an effective English language teacher. It is essential for a teacher of English to demonstrate pedagogical competence and have a wide range of skills such as lesson planning, materials development, classroom management, instructional organization, presentation of the subject matter, and assessment (Demirel, 1989).

The main components of teaching profession have been defined under three dimensions: general, subject matter (content), and pedagogical knowledge. When the studies carried out about the areas of knowledge that a teacher should have are examined, several categories are proposed by several researchers (Borg, 2003; Elbaz, 1981; Freeman & Johnson, 1998; Golombek, 1998; Meijer et al., 1999; Meijer et al., 2001). However, a new knowledge area called the ‘pedagogical content knowledge’, which is as significant as the others, has been introduced. Although all the knowledge components are critical in teacher development, the study of *pedagogical content knowledge* (PCK) is relatively new in some disciplines. Being the pioneer of the term, Shulman (1987) proposed that this form of knowledge is crucial for effective teaching as it relates to the capability to represent and formulate content in a particular discipline in ways that are understandable to students. The PCK concerns how teachers relate their subject matter knowledge (what they know about what they teach) to their pedagogical knowledge (what they know about teaching), and how subject matter knowledge is related to the process of pedagogical reasoning (Shulman, 1987). According to Shulman (1987: 8), PCK “represents the blending of content and pedagogy into an understanding of how particular topics, problems, or issues are organized, represented, and adapted to the diverse interests and abilities of learners, and presented for instruction”. PCK for foreign language teacher education refers to what teachers know about teaching the target language to empower students to communicate in the target language. PCK “is commonly believed to be a transformation of at least two constituent knowledge domains: general pedagogical knowledge and subject matter knowledge” (Gess-Newsome, 1999: 5). A teacher with good PCK teaches a subject matter with appropriate instruction strategies. Namely, they must have the knowledge of the subject matter, knowledge on planning lessons, knowledge of learners, knowledge on teaching methods and techniques, and knowledge on assessment all together. According to Tamir (1988), pedagogical knowledge is comprised of four components, which are students, curriculum, evaluation, and instruction (that includes both teaching and management). Çakır (2008: 15) also provides a comprehensive definition of pedagogical knowledge as acquiring “some skills including the process and practices involved in classroom management, lesson plan, and implementation. It also contains knowledge about teaching methods to be used and strategies for evaluating students’ understanding.”

According to Freeman and Richards (1996), we need to know more about language teachers in order to understand teaching well. Moreover, we need to understand more about prospective language teachers’ perceptions of knowledge about language teaching in order to understand how effective the education they have in the ELT departments is. Although PCK has been explored in a number of studies in disciplines such as mathematics and science (Cochran-Smith & Lytle, 1999; Grossman, 1990), teachers’ pedagogical content knowledge in teaching English is still an understudied area. This study attempts to fill the gap by examining the prospective English PCK as understanding their PCK may help the universities to train better English teachers.

The main purpose of this study is to investigate the prospective language teachers' PCK. As pedagogical content knowledge consists of the knowledge of the content, lesson planning, learners, teaching methods and techniques, and assessment, the study aims to determine teacher competencies regarding these issues. Therefore, the study investigates the following research questions:

1. What are the prospective English teachers' perceptions of their own level of pedagogical content knowledge?
2. To what extent do the prospective English teachers make use of their pedagogical content knowledge? In their teaching practices, to what extent do they use their:
 - 2.1. knowledge of English,
 - 2.2. knowledge on planning lessons,
 - 2.3. knowledge of their learners,
 - 2.4. knowledge on teaching methods and techniques,
 - 2.5. knowledge on assessment?

Methodology

Research studies on EFL teachers' PCK generally examined the sources of teacher knowledge (Akyel, 1997; Ariogul, 2006; Banegas, 2009; Johnston and Goettsch, 2000; Koçoğlu, 2009; Mok, 1994; Nespor, 1987; Richards, 1991; Sundusiyah, 2009; Zhang, 2008), and the relationship between the teacher knowledge and classroom teaching practices (Popko, 2005; Saraç-Süzer, 2007a; Saraç-Süzer, 2007b). They usually investigated the development of teacher knowledge by analyzing the teaching practices. In the opinion of Borg (2003), without the analysis of teachers' teaching practices, a researcher limits the implications of the findings of his/her study in teacher knowledge research. In such studies, generally qualitative data collection methods are used. Even if the researchers make use of quantitative data collection methods, they support and explain its results with the help of the qualitative ones. Pajares (1992; cited in Zhang, 2008: 25) explains why qualitative data collection techniques are used so frequently by arguing that "beliefs cannot be directly observed or measured, but must be inferred from what people say, intend, and do".

In order to seek answers to the research questions, 'the mixed research method' was used in the study in which quantitative and qualitative research techniques, methods, and approaches are combined (Johnson & Onwuegbuzie, 2004). In this mixed research method, the researchers conducted a questionnaire as the primary data collection tool and the data collection process was supported with interviews, classroom observations and document analysis (lesson plans) which are qualitative data collection tools. The mixed research method is used to get benefit from the strengths and to minimize the weaknesses of both quantitative and qualitative research in a single study (Johnson & Onwuegbuzie, 2004, McMillan & Schumacher, 1993). As a research design, the researchers use a 'sequential explanatory design' which consists of both quantitative and qualitative analysis of the data. The answer to the first research question is sought using a questionnaire which is part of the quantitative phase of the study. According to the results of the first phase (quantitative), interview questions were developed and the second research question was answered using different qualitative data collection techniques in the second phase (qualitative) of the study which helped explain, or elaborate on the quantitative results obtained in the first phase (Ivankova, Creswell, and Stick, 2006).

Figure 1. Visual Model for the Mixed Research Method, Sequential Explanatory Research Design Procedures (adapted from Ivankova et al., 2006: 16)

Phase	Procedure	Product
QUANTITATIVE Data Collection	Questionnaire applied to 127 prospective teachers of English	Numeric data
↓		
QUANTITATIVE Data Analysis	Reliability analysis Descriptive statistics Inferential statistics (Mann-Whitney U Test) SPSS quan. software v.17	Cronbach's Alpha Frequencies, mean values Value of U
↓		
Connecting Quantitative and Qualitative Phases	Purposefully selecting three participants based on maximal variation principle Developing interview questions and observation procedure	Participants (n=3) Interview guide and observation procedure
↓		
Qualitative Data Collection	Documents (lesson plans) Observation Individual face-to-face interviews with 3 participants	Text data (interview transcripts, documents) Audio-visual data (video records)
↓		
Qualitative Data Analysis	Coding and thematic analysis Within-case and cross-case theme development Cross-thematic analysis	Codes and themes Similar and different themes and categories
↓		
Integration of the Quantitative and Qualitative Results	Interpretation and explanation of the quantitative and qualitative results	Discussion Conclusion Implications

As it can clearly be seen in the figure above, the study began with the collection and analysis of quantitative data. Then, the researchers planned the subsequent qualitative phase by developing the interview questions and the observation protocol with the help of the quantitative findings. The quantitative findings also provided criteria for identifying the three prospective teachers selected for the second, qualitative phase. Later, qualitative data were collected by means of document analysis, observation, and interviews. The analysis of the qualitative findings was used to explain and interpret findings of the quantitative phase (Creswell et al., 2003). The results from the qualitative phase extended and helped explain the initial quantitative findings. The quantitative and qualitative results were integrated in the discussion and implications part (Tashakkori & Teddlie, 2003).

Limitations of the Study

The selected case for the study was the prospective English teachers at the English Language Teaching Department, at Çanakkale Onsekiz Mart University (COMU), Turkey. Only one case was chosen while collecting and analyzing the data. Therefore, the study findings were limited to the selected case. Another limitation of the study was the self-reported data. Self-reported data is limited as it rarely can be independently verified. Finally, the participants' teaching experience is limited to

the one they got either at the Community Service Practices Course they took or at the private courses they gave.

Setting and Participants

As Merriam (1998: 41) states, case studies give a chance of examining complex social units consisting of multiple variables in understanding the relevant phenomena. As examining the prospective English teachers' PCK is a complex phenomenon, case study was chosen as a research method. In this study, the participants were chosen following Maximum Variation sampling among the ones who enrolled in the "Teaching Practice" course. As the quantitative results do not indicate statistically significant difference between the genders, the researchers did not consider this variable (gender) while selecting the participants of the qualitative phase. He, thus, selected **Teacher 1 (T1)**, who had teaching experience and was more successful (whose GPA was above 3,00), and **Teacher 2 (T2)**, who was more successful, but with no teaching experience, and **Teacher 3 (T3)**, who did not have any teaching experience and was less successful (whose GPA was below 3,00).

Table 1. Participants Selected for the Qualitative Phase of the Study: Maximum Variation Sampling

Gender	Female	Male	Male
Teaching Experience	YES	NO	NO
GPA	3,01	3,10	2,82

All three prospective teachers agreed to participate in the qualitative phase of the study. While selecting these participants, the researchers aimed to explain the quantitative results of the study in more detail. In order to explain the significant differences between the experienced and inexperienced prospective teachers, the researchers compared and contrasted T1 and T2's teaching practices as they both had GPA above 3.00. He analyzed T2 and T3's teaching practices to see the differences due to the participants' GPA as they were both inexperienced. Finally, to find out the effect of being both experienced and more successful student, the researchers analyzed the teaching practice of T1, who was both experienced and more successful, and that of T3, who was both inexperienced and less successful.

Data Collection and Analysis

The first part of the study was conducted to all prospective English teachers at COMU. A questionnaire was administered to find out about their perceptions of their own competencies. In the second part of the study, in which document analysis, observation and interviews were used, three participants contributed to the study when they were having their "Teaching Practice" courses at COMU. Before conducting the main study, the researchers analyzed the internal consistency of the items of the questionnaire. Table 2 presents the internal consistency reliability of the items. 48 items in the the questionnaire are shown to have a high degree of internal consistency with the value .95. This value is acceptable according to Büyüköztürk (2006) who recommends levels of .70 or greater for scales like these.

Table 2. Internal Consistency Reliability (Cronbach Alpha Coefficient)

		Valid	Excluded	Total
Items	.95	104	8	112

The quantitative data obtained from the questionnaire were analyzed by using descriptive and inferential statistics. Prospective English teachers' perceptions of their own level of teaching competency in terms of their pedagogical content knowledge were analyzed through presenting the means, percentages and frequencies obtained for each item through the SPSS program. The highest and lowest mean values and the frequencies of the answers given to the items of the questionnaire were discussed.

The qualitative data obtained from three prospective teachers of English were analyzed in order to explain the initial quantitative findings. While analyzing the qualitative data, both within-case and cross-case analyses (Merriam, 1998) were conducted. This enabled the researchers to group common responses from different perspectives and focus on the parallelism and differences between the participants (Patton, 1990; cited in Şallı-Çopur, 2008: 73). The researchers followed the set of analytic activities proposed by Lune and Berg (2017: 184) while analyzing the data collected through interviews, observations and document analysis. Firstly, data is collected and made into text. Then, codes are analytically developed and identified in the data. Later, codes are transformed into categorical themes. Data collection materials are sorted by these categories, identifying similar phrases, patterns, and relationships. Identified patterns are considered in light of previous research, and a small set of generalizations is established. Finally, researchers wrote a preliminary analysis for each prospective teacher, which helped them in their case and cross-case analysis.

Findings and Discussion

Comparative analysis of the quantitative and qualitative results is discussed and “a general profile” (Baxter and Lederman, 1999: 154) of the prospective English teachers' pedagogical content knowledge at Çanakkale Onsekiz Mart University is inferred.

RQ1. What are the prospective English teachers' perceptions of their own level of pedagogical content knowledge?

To find the answer to this research question, a questionnaire was conducted. The overall mean score of all the items in the questionnaire was found to be 4.09, which shows the prospective teachers agreed that they have the required competencies in general. They believe that they have good command of PCK. When the items are analyzed one by one, none of the items' mean values points a degree of disagreement (below 2.5). To find out whether there were any differences in what they believed they could do and what they actually did, the second research question emerged.

RQ2. To what extent do the prospective English teachers make use of their pedagogical content knowledge in their teaching practices?

Analyzing the participants' different domains of knowledge through descriptive statistics, the researchers found out that prospective teachers agreed they have the required competencies in general. However, quantitative data analysis results indicate that their knowledge of English is the only knowledge domain the mean value of which is below 4.00.

RQ2.1 Prospective teachers' knowledge of English

Though the prospective teachers of English see themselves competent in other knowledge domains, they believe that they do not have required knowledge of the language they teach. The results show similarities with those of Şahin's (2006). In his study, participants regarded themselves as inadequate in the knowledge of a language.

Table 3. Prospective Teachers' Perceptions of their Knowledge of English

	Items	N	Mean	SD
1.	I can apply my knowledge of phonology (the sound system) to help students develop oral, reading and writing skills in English.	127	4,1102	,68113
2.	I can apply my knowledge of morphology (the structure of words) to assist students' development of oral and literacy skills in English.	127	4,0866	,69034
3.	I can apply my knowledge of syntax (phrase and sentence structure) to assist students in developing written and spoken English.	127	4,1024	,76464
4.	I can apply my understanding of semantics (word/sentence meaning) to assist students in using a wide range of vocabulary in English.	127	4,2992	,68214
5.	I can apply my knowledge of pragmatics (the effect of context on language) to help students communicate effectively.	126	4,1984	,72685
6.	I have a good command of English.	127	4,0315	,73395
7.	I can use the English language to communicate clearly and effectively while speaking.	127	3,9134	,79705
8.	It is easy for me to understand conferences, radio and television talks in English.	127	3,8976	,79517
9.	I can read and understand popular novels and story books in English with no use or only little use of a dictionary.	127	3,8740	,81642
10.	I can write all types of essays, letters, etc. to communicate without having any difficulties.	126	3,4762	,90963
11.	I'm good at pronouncing the English words, stress and intonation patterns correctly.	127	3,6614	,94466
12.	I have a wide knowledge of vocabulary.	127	3,6299	,79486
13.	I know the English grammar very well.	127	4,1811	,76030
Total Mean of the items above: 3.9586				

Being both experienced and more successful, T1 believes that subject matter knowledge of the teachers is more important than their pedagogical knowledge. She expresses that “teachers cannot overcome the unexpected problems and it is impossible for them to create new opportunities for the students unless they have good command of English”. As she attached more importance to the knowledge of English, her knowledge of English was the best when compared with other participants of the study. Unlike T1, T2 considered pedagogical knowledge to be more important than the subject matter knowledge and he made more grammatical mistakes than T1 did. To teach effectively, prospective teachers should not underestimate the knowledge of English and pay the attention to it with all its grammar, pronunciation, and vocabulary. Not being competent in subject matter knowledge prevents being a good teacher in the classroom (Guyton & Farokhi, 1987; Minor, Onwuegbuzie & Witcher, 2000).

Another finding of quantitative data analysis reveals that that the prospective teachers agree they can apply their understanding of semantics (word/sentence meaning) to assist their students in using a wide range of vocabulary in English ($\bar{X}_{\text{item 4}} = 4,30$). Observing the prospective teachers' teaching practices, the researchers realized that two of the prospective teachers taught the new words by showing their pictures and providing sample sentences of these words. However, one of them, having neither any teaching experience nor a GPA above 3.00, just showed the pictures and translated the vocabulary items into Turkish, and made use of students' mother tongue to teach the words. He did not use his knowledge of semantics while teaching vocabulary to learners. According to Johnston and Goettsch's (2000) study, experienced teachers put more emphasis on using examples during explanations. In the present study, not only experienced but also more successful students made use of examples while clarifying the meanings of the words taught. From these remarks, it can be concluded that knowledge of semantics is developed not only by teaching experience, but also by pre-service teacher education. Another important finding of the quantitative data analysis is that the prospective teachers having a GPA above 3.00 can apply their knowledge of phonology (the sound system) better than the less successful students can.

Table 4 . Mann-Whitney U Test Presenting the Difference in Item 1 in Terms of Participants' GPA

Item 1	GPA	N	Mean Rank	Sum of Ranks	U	p
I can apply my knowledge of phonology (the sound system) to help students develop oral, reading and writing skills in English.	3.00 and Above	22	76,41	1681,00	822.000	.047
	Between 2.00 and 2.99	105	61,40	6447,00		

Qualitative data analysis results also verify this finding as T1 and T2 made less pronunciation mistakes than T3, though T3 made very little use of the target language.

RQ2.2 Prospective teachers' knowledge on planning lessons

Among the other knowledge domains, prospective teachers' knowledge on planning lessons has the highest total mean value. They believe they can prepare effective lesson plans.

Table 5. Prospective Teachers' Perceptions of their Knowledge on Planning Lessons

14. I can plan my lessons considering my students' language levels, learning styles, interests and needs.	127	4,5197	,64057
15. I can write aims and behavioral objectives of the lesson clearly.	127	4,1732	,76733
16. I can prepare lesson plans that will help me reach my aims.	127	4,3701	,68780
17. I can decide on the ways of how to make students ready for the lesson in the warm-up session.	127	4,4252	,69602
18. I can relate the lesson with the previous and following lessons.	127	4,4252	,66092
19. I can write clear instructions for different parts of the lesson plan.	127	4,5512	,66319
20. I can make use of various activities.	126	4,5476	,62747
Total Mean of the items above: 4,4303			

When the lesson plans of the participant prospective teachers were analyzed, it was found out that they had necessary theoretical knowledge to plan their lessons in an appropriate way. However, they all had either few or some problems in implementing the lesson plan while they were teaching vocabulary to the students. T1 prepared and followed her lesson plan better than the other participants did. Prospective teachers of COMU strongly agree that they can write clear instructions for different parts of the lesson plan ($\bar{X}_{\text{item 19}} = 4,55$). When their lesson plan assessment forms were analyzed, it was found out that their instructions for the activities were clear. They had some problems while they were doing what they actually planned though. All three participants of the qualitative study had problems regarding time allotment. In an earlier study, Kwo (1996) specified two major concerns of prospective teachers. They were pacing in relation to time constraints and unexpected learning difficulties. Both concerns were also observed in this study. Student teachers' predicted time allotted to each activity did not match with the one they actually used in their teaching practice.

Interestingly, only one out of 127 participants did not agree that he/she can decide on the ways of how to make students ready for the lesson and plan his/her lessons considering his/her students' language levels, learning styles, interests and needs. Observation results indicated that T1 and T2 made use of video and storytelling successively. However, T3 preferred to ask questions about the pictures in students' books, which caused students get uninterested. One out of three participants, both less successful and in experienced, could not achieve to keep students' interests alive and consider his students' language levels, learning styles, interests and needs. Moreover, nearly all of the prospective teachers believe that they can make use of various activities while planning their lessons. Their answers to the questionnaire shows only one out of 127 participants did not agree that he/she can make

use of various activities in his/her lesson plan. Observation results verify this finding. Either worked effectively or not, T1, T2 and T3 tried to make use of various activities while teaching the new words.

RQ2.3 Prospective teachers' knowledge of learners

With the highest mean value among the items of the questionnaire, item 21 shows that prospective teachers can use appropriate sources and materials (\bar{X} item 21= 4,57) with their knowledge of learners and their learners' different characteristics (\bar{X} total mean = 4,27).

Table 6. Prospective Teachers' Perceptions of their Knowledge of Learners

21. I can use appropriate sources and materials for my students.	127	4,5748	,63645
22. I can forecast possible questions to be asked and provide their possible answers.	127	3,9921	,71820
23. I can explain the terms and concepts my students have difficulty in understanding.	127	4,2205	,71173
24. I can explain what should be done to clarify the terms and concepts my students have difficulty in understanding.	126	4,1905	,67781
25. I can make use of the target language considering my students' levels.	127	4,3465	,72788
26. I can motivate my students to learn.	126	4,4841	,74548
27. I can keep their motivation and interest alive.	127	4,3543	,77180
28. I can deal with almost any learning problems of the students.	127	3,7953	,89388
29. I have an understanding of how students develop and learn.	126	4,1746	,69374
30. I'm aware of the learning styles (visual, verbal, aural, logical, etc.) of my students.	126	4,4762	,75593
31. I know the learning strategies (using background knowledge, making predictions, summarizing, cooperating, etc.) of my students.	127	4,3543	,77180
Total Mean of the items above: 4,2693			

Having GPA above 3.00, T1 and T2 adapted the reading comprehension questions and the activities given in students' book so that they would be appropriate for their students' interests, needs, and levels. However, T3 did not change any of the questions as he believed there was no need to do so. In adapting materials considering students' needs and levels, participants' GPA played more important role than their teaching experiences. The least successful prospective teacher tended to teach vocabulary without paying sufficient attention to students' English proficiency, needs, and backgrounds.

In the quantitative phase of the study, it was also found out that prospective teachers were not that much sure about dealing with almost any learning problems of their students (\bar{X} item 28= 3,79), and forecasting possible questions to be asked and providing their possible answers (\bar{X} item 22= 3,99). In the qualitative phase of the study, the results were similar. Though all the participants provided some anticipated problems and their solutions, they experienced more problems than they had anticipated. "To know how to speak about teaching is not the same as knowing how to actually teach" (Strauss, 1993: 289). In other words, what they believed they could do and what they actually did were different. Unexpected learning difficulties what Kwo (1996) specified as one of the major concerns of the student teachers were also observed in their teaching practices while they were dealing with the problems. Even though all three prospective teachers had problems in their teaching practice, observers reached to a consensus that T1, who was experienced, was the best at dealing with both anticipated and unexpected problems.

RQ2.4 Prospective teachers' knowledge on teaching methods and techniques

According to the quantitative data analysis results, the prospective teachers believe they are knowledgeable about the methods and techniques to be used in their teaching practice. The results also show that the prospective teachers can make use of an eclectic method or communicative approach better than they do traditional teaching methods.

Table 7. Prospective Teachers' Perceptions of their Knowledge on Teaching Methods and Techniques

32. I can make use of appropriate methods and techniques in the teaching process.	122	4,2213	,68650
33. reading skills.	127	4,3228	,77544
34. writing skills.	127	4,0394	,85821
35. listening skills.	127	4,1496	,76717
I can make use of appropriate methods and techniques to improve students'	127	4,0709	,77849
36. speaking skills.	127	4,5354	,71041
37. vocabulary knowledge.	127	4,5197	,74376
38. knowledge of grammar.	126	4,0159	,86703
39. pronunciation.			
40. I can make use of traditional teaching methods (Grammar Translation, Direct Method, etc.).	127	3,6378	1,10316
41. I can make use of communicative approach in English language teaching to improve my students' communication skills.	127	4,2756	,67468
42. I can make use of an eclectic method (combining the techniques of many other methods and approaches).	127	4,3465	,75989
Total Mean of the items above: 4,1941			

Observation and interview results reveal that this is not the case for less successful students. T1 and T2 achieved to use various appropriate methods and techniques to teach vocabulary. However, T3, whose GPA is below 3.00, used grammar translation method in general. The students with a GPA above 3.00 are more successful in choosing the appropriate method and technique while teaching vocabulary. The observation results of T1 and T2's teaching practices make it clear that more successful prospective teachers tend to combine the techniques of different methods and approaches better than the unsuccessful one does. As in adapting materials considering students' needs and levels, participants' GPA again played more important role than their teaching experiences or their genders in choosing appropriate methods and techniques to be used. This verifies the positive impact of the courses taken in the ELT departments on the prospective teachers' knowledge base discussed in the literature (Atay, Kaşlıoğlu & Kurt, 2010; Banegas, 2009; Koçoğlu, 2009).

Except for the two out of 127 participants, prospective teachers believe that they can make use of communicative approach or an eclectic method. In contrast, 53 participants (41,7 percent) either disagree with or feel neutral about the fact that they can make use of traditional teaching methods such as grammar translation and direct method. However, the observation results and interview transcripts revealed that all three prospective teachers preferred grammar translation and direct method while presenting the new words while they were supporting their presentation with some eclectic and communicative activities. Once more, Strauss's (1993) argument is verified as their perceptions of what they could do were different from their actual teaching practices.

RQ2.5 Prospective teachers' knowledge on assessment

According to Item 48, having the highest mean value related to their knowledge on assessment, prospective teachers believe they can reflect the results of the classroom assessment process to their future practices. Also, Item 47 with the second highest mean value suggests they can give appropriate feedback.

Table 8. Prospective Teachers' Perceptions of their Knowledge on Assessment

43. I can determine the aims of assessment practices.	127	3,9843	,77648
44. I'm well informed about the uses of a wide variety of assessment strategies.	127	3,7244	,90569
45. I can choose the methods of assessment which is appropriate for my students.	126	4,0000	,83905
46. I can integrate all language skills while assessing the students' success.	127	4,0787	,83196
47. I can give appropriate feedback according to the results of the measurement process.	127	4,2520	,70112
48. I can reflect the results of the classroom assessment process to my future practices.	127	4,3386	,65732
Total Mean of the items above: 4,0630			

Their answers to the interview questions verify these findings. All of them believed that they would change the activities in their lesson plans and use different test techniques to assess students' comprehension if they had a second chance to teach the same vocabulary. Therefore, it can be concluded that they tend to reflect the results of the assessment process to their future practices. Another result that can also be drawn from the quantitative phase of the study is that participants do not perceive themselves as being knowledgeable about the uses of wide variety of assessment strategies (Item 44). It was also observed that prospective teachers used a very limited number of techniques to assess students' comprehension although there were many traditional and alternative test techniques to be used. This may mean that they are not really knowledgeable about various test techniques to be used in their teaching practices.

The quantitative data analysis results regarding the teaching experience of the participants reveal that experienced prospective teachers tend to use multiple-choice and matching questions more frequently than the inexperienced ones do.

Table 9. Mann-Whitney U Test Presenting the Difference in the Use of Test Techniques in Terms of Participants' Teaching Experience

Multiple-choice	NO	53	56,15	2976,00	1545,000	.034
	YES	74	69,62	5152,00		
Matching	NO	53	52,72	2794,00	1363,000	.002
	YES	74	72,08	5334,00		

Köksal and Cesur (2012: 48) also found in their study that the more experienced the instructors are, the more efficient they find the multiple-choice questions prepared by the test constructors working for the testing office. In their study, instructors mostly preferred to use multiple-choice and matching. Similarly, T1 assessed her students' comprehension using a matching activity and T2 expressed that he would have assessed his students' success through multiple-choice questions and matching activities if he had had second chance to teach the same topic. As the prospective teachers become more experienced, they tend to use multiple-choice questions and matching activities.

All in all, when their pedagogical content knowledge is investigated, prospective teachers' GPA plays the most important role explaining the differences among them. Some other differences can also be explained considering whether they have any teaching experience or not.

Conclusion and Implications

There was a mismatch between what the teacher candidates knew theoretically and what they did in their actual teaching practice. A well-structured ELT program will narrow the gap between the teaching practices and theoretical pedagogy of language teacher preparation courses. Thus, "it is the responsibility of teacher education programs to offer ways for teachers to see links between theory and practice" (Bigelow & Ranney, 2005: 199). When teachers manage to combine the theory and practice and develop their pedagogical content knowledge, "knowledge gained from both will benefit both" (Bigelow & Ranney, 2005: 199). Similarly, as Popko (2005) recommends, teaching about English in grammar and linguistic courses with separate methodology courses may not be the best way to approach English language teacher preparation. Knowledge of English itself can be helpful; however, no knowledge is helpful without application. Therefore, the ELT programs should be revised. Courses that are designed to develop teacher candidates' subject matter knowledge such as 'Contextual Grammar' and 'Vocabulary Knowledge' should also ensure that they have protocols for applying certain aspects of knowledge about language to their own teaching. For example, courses named 'Pedagogical Grammar' or 'Pedagogical Vocabulary', in which the focus would be on methods of teaching grammar and vocabulary, can be integrated in the ELT program. In such courses, the teacher candidates can be taught different grammatical issues and the ways how they can teach such issues to their learners. As Bartels (2009: 130) suggests, the courses they took at the ELT departments "need to stop focusing on academic practices, such as reading studies and discussing theories". Instead, these courses should provide teacher candidates with learning experiences in which (1) they use or develop their knowledge about language to 'engage in teaching-like tasks' and (2) they learn to design and carry out practice activities which help them acquire knowledge about language.

The present study verifies the fact that subject matter and pedagogical competencies have a strong connection with teachers' performance and in-class teaching practice. T1, one of the participants of this study, had a good command of English and her subject matter knowledge was much better than that of the other participants. This in turn influenced her teaching practice in a positive way. Believing that subject matter knowledge is more important than pedagogical knowledge, T1 made fewer mistakes than T2 did, who attached more importance to pedagogical knowledge. Moreover, contrary to T1, T3 had problems regarding his subject matter knowledge. Thus, he had some problems in his teaching practice as well. Therefore, EFL teacher education programs should raise their student teachers' awareness on subject matter (content) knowledge.

EFL teacher education programs need to provide further opportunities for EFL teacher candidates to develop their content knowledge: grammar, vocabulary, pronunciation, and so on. To be able to explain the concepts in their classrooms effectively, teachers need to have willingness and confidence to grapple with the concepts at deep level (Hislam & Cajkler, 2005: 311). Grammatical knowledge at a deep level requires intensive teaching. Moreover, in the opinion of Pemberton (2003), there are three main ways of learning vocabulary: memorizing, using and recycling. He suggests that in order to avoid forgetting what one has learned, he/she should learn words repeatedly, with increasing intervals between learning sessions. As it can be understood from their statements, continuous and intensive teaching of both vocabulary and grammar should be provided to the teacher candidates in the ELT departments. Rather than the courses taught only in their first years of education such as 'Contextual Grammar', 'Vocabulary Knowledge', and 'Listening and Phonetics', future teachers of English should be provided more courses which will help their knowledge of grammar, vocabulary and pronunciation develop in time till they graduate. Therefore, courses taught at the ELT program should be revised so that the prospective teachers can develop their subject matter knowledge not only in their first years, but also in the other three years of their education.

Understanding teacher knowledge requires understanding its sources as these sources shape teachers' conceptions of teaching and learning, and they affect the teachers' development of knowledge (Tsui, 2003). Teacher knowledge is generally accepted to be constructed from four possible sources: teacher education, disciplinary background, apprenticeship of observation, and classroom teaching experience (Grossman, 1990; Richards, 1998; Tsui, 2003). Bearing these sources in mind, disciplinary background and teacher education is provided to the prospective teachers of English in the ELT department of COMU by means of the courses they take during their four-year-education. However, they only have apprenticeship of observation in the fall term, and classroom teaching in the spring term of their last year. Future teachers of English can be given the opportunities to assist the instructors working at universities. Language teacher education program can organize new projects with the help of which ELT students can observe the instructors who teach English at different levels to the preparatory students of the School of Foreign Languages as "observation is a powerful source of insight and discovery and can help the prospective teachers develop new strategies for teaching" (Crandall, 1998; cited in Zhang, 2008: 235).

In the four-year-program, ELT students should not only be provided with apprenticeship of observation but also be given the chance to teach English to the preparatory students which will develop their classroom teaching experience which is generally considered to be the most important source of knowledge about teaching (Grossman, 1990; Tsui, 2003). Experience is a continuous lifelong phenomenon which "means that all experience shapes or shades in some way further experience" (McCaughtry, 2005: 391). Teacher education program should organize and support new relationships between the new and experienced teachers (Freeman, 2002). Therefore, prospective teachers' teaching practices can be enhanced by providing them with new opportunities to have more teaching experience. To further illustrate, the students of ELT departments can be 'assistant teachers' of the instructors working at universities accompanying them one or two hours a week in their courses at the preparatory classes of the School of Foreign Languages. This will also enable the pre-service English language teachers to carry out more practicum hours than they do currently. Trying to teach an hour or two in a week to a student learning English, each prospective teacher will benefit from his/her tutorial practice and find the chance of exploring his/her own weaknesses and strengths regarding their PCK, which will also help them be more experienced English language teachers.

"Reflection in response to their own classrooms helps teachers contextualize their personal practical knowledge, thus making meaning of this knowledge" (Golombek, 1998: 461). Therefore, language teacher education programs should foster reflection that contextualizes teacher knowledge. Prospective teachers should be taught to conduct action research effectively. By conducting action research, they can directly examine what they know about the language, the curriculum, the students, the instructional strategies, and the ways of assessing students. This will in turn help them realize what they did in the past, are doing now and will do to teach more effectively in the future considering their own teaching practices. As Ariogul also (2006: 157) suggests, self-reflection and collaboration opportunities need to be created in pre-service training. With the help of the questions asked during the interviews, they shared their experiences of teaching. This perhaps let them the chance to talk about and understand their knowledge for the first time. Realizing what they know and what they further need to know may help them develop their knowledge base.

EFL teacher education programs ought to find ways to raise teacher candidates' awareness that knowledge of learners plays a significant role in effective EFL teaching as the participants seem to have difficulties in anticipating the problems they would face. According to the results obtained from the quantitative data, inexperienced prospective teachers thought that they would anticipate students' problems effectively and solve these problems during their classroom teaching practices. After observing their actual teaching practices, qualitative data results revealed that experienced prospective teachers were much better in anticipating and solving the problems than the inexperienced teachers were. Prospective teachers were not aware of their actual capacity to deal with the problems in their classes. Thus, teacher education programs should provide the future teachers of English with opportunities to raise their awareness of possible problems they will face when they become real teachers, to examine the causes and the negative effects of the problems, and to consider and practice

effective strategies to deal with the problems. To achieve these, a course named ‘Dealing with Problematic Classes’ can be integrated to the program. Instruction of this course should be based on problem-based learning approach in which “students receive a problem and work in teams to try to identify the nature of the problem and the resources they will need to solve the problem” (Major & Palmer, 2006: 623). This course can teach prospective teachers what to do if the students are all at different levels, if they keep using their own language, if they are uncooperative, if they do not want to talk (Harmer, 1998), if they do not understand the instructions, and if they have some misconceptions regarding grammar, vocabulary, pronunciation and other skill areas.

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A Study on Social Studies Teacher Candidates' Perception of Science, Scientific Research and Scientists *

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Abstract

In this study, it is aimed to determine the perceptions of social studies teacher candidates regarding the topics of science, scientific research and scientists. In the study adopting the qualitative research approach, data was gathered through both the metaphor form and interviews. The study was conducted in a university located in Ankara. Ninety-two teacher candidates participated in the metaphor stage of the study; and 45 teacher candidates participated in the interview stage. It has been concluded that metaphors developed by teacher candidates do not contain any negative perception regarding the science. When the metaphor images of teacher candidates were examined, it was determined that in general, the concept of science is perceived as guiding and indispensable for life. According to the participants, scientists are perceived as enlightening, knowledgeable, curious and hardworking. With regard to the concept of scientific research, the participants have brought to the forefront that scientific studies are difficult, they require much effort, and they are systematic. In the analysis of the interview data, it was determined that the social studies teacher candidates do not have enough information about science, scientists and scientific research. In the analysis of the interview data, it was seen that teacher candidates have some incorrect information about the science, scientific research and scientists. Some recommendations were offered in the light of the findings of the study.

Keywords: science, scientific research, scientists, social studies, qualitative research

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Introduction

In today's world, the importance attributed to science and scientific studies is increasing incrementally. The way to shape the future, beyond catching up with the present century is to give weight to scientific studies. One of the important steps taken by many countries in the name of science is to educate scientists and to provide them with suitable working environments. But these steps are not seen enough in today's conditions. Apart from these steps, it is expected that all citizens of countries internalize the importance of the concept of science at a minimum level at least and embrace scientific thought methods. This can only be done through quality education.

The method of teaching science to younger generations is a multidisciplinary concept, and it needs to be addressed with an interdisciplinary approach. When Turkish education system is examined, it is seen that different course contents (MONE, 2017; MONE, 2018a; 2018b) are thought to students in such a way that they complement each other in terms of laying and developing the bases of science on students. Social studies course is one of the most important subjects in bringing science to younger generations. Social studies is a course which came into being by collecting the scientific knowledge produced by various social science branches in order to raise active citizens by taking into consideration the levels and needs of the secondary school students (Doğanay, 2003; MONE, 2005; Kabapınar, 2012). When the curriculum of the social studies course is examined, it is seen that 2 of the 18 general aims of the course are directly related to 'science'. It is also possible to see the traces of scientific thought in the expressions of aims apart from these two general ones. In addition, the concept of scientificity has been shown as a value to be directly given in the social studies course.

In the social studies curriculum, subjects of science, scientific research and scientist are as follows from the 4th to the 7th grade: Fourth grade students are expected to comprehend the development of technology within the historical process and to know the inventors contributing to this development. It is also aimed that 4th grade students perceive the interaction of nature and technology. Fifth grade students are expected to comprehend characteristics of scientists and to be aware of the importance of reaching reliable and correct information and the importance of scientific ethics and scientific thinking. In the 6th grade; it is aimed that students get informed of social sciences working method and the effects of social sciences on community life and copyright-patent rights. In addition, they are expected to have an idea about the effect of scientific and technologic developments on future, and to use scientific research steps. At the level of 7th grade, it is aimed that students have an idea about the scientists having grown in Turkish-Islamic civilizations and their studying methods, the scientific and technological developments of Europe between 15th-20th centuries, and the scientists having contributed to these developments. Again in the 7th grade, making students comprehend the importance of free thought for scientificity is among the other purposes of the course (MONE, 2017). As is seen, the social studies is an important course addressing concept of science with 18 different outcomes.

It is seen that with the importance attributed to science, the number of studies focusing on science has also increased in the last 60 years. In the literature, it is seen that there are many studies aimed at determining the thoughts of people from various age groups on science and scientists. One of the initial studies was done by Mead and Metraux (1957) through texts written by high school students. As a result of this study, it has been determined that students have various stereotypes about science. Beardslee and O'Dowd (1961) encountered similar findings in the study where they aimed at detecting the perception of university students for scientists. One of the most remarkable studies in the literature was carried out by Chambers in 1983. According to Schibeci and Sorensen (1983:18), the tool called 'The Draw-A-Scientist Test (DAST)' developed by Chamber has been frequently used for determining perceptions of people from different countries and different age intervals for science and scientists due to such advantages that it does not take too much time, it can be applied to illiterate age groups, and participants are much more willing for this study and it is more fun (Schibeci & Sorensen, 1983; Newton & Newton, 1992; Newton & Newton, 1998; She, 1998; Fung, 2002; Türkmen, 2008; Korkmaz & Kavak, 2010; Akcay 2011; Nuhoglu & Afacan, 2011; Küçük & Bağ, 2012; Samaras,

Bonoti & Christidou, 2012; Erten, Kıray & Şen-Gümüş, 2013; Narayan, Park, Peker & Suh, 2013; Çeliker-Deniz & Avcı-Erduran, 2015; Ürey, Karaçöp, Göksu & Çolak, 2017). In the literature, there are different studies (Thomas, Pederson & Finson, 2001; Schibeci, 2006; Finson, Beaver & Cramond, 1995; Song & Kim, 1999; Güler & Akman, 2006; Oktay & Eryurt, 2012; Medina-Jerez, Middleton, & Rabaza-Orihuela, 2011) performed by using the results of DAST's analysis. Krajovich and Smith (1982), unlike other researchers, have sought to identify people's thoughts on science by developing a quantitative scale based on the findings of Mead and Metraux. Another study encountered frequently in the literature is studies in which science and scientist perceptions of individuals from various age groups are determined by means of metaphors (Karaçam, 2015; Uslu, Kocakulah & Gür, 2016; Bıyıklı, Başbay & Başbay, 2014; Yalçın-Ağgöl, 2012; Şenel & Aslan, 2014; Boyraz & Kılıçer, 2017; Kırıl, 2017). These studies in general show that individuals from different age groups have some stereotypes about scientists. According to common findings of the studies, scientists are old or middle-aged people, they are men, they work in laboratory environment, they are antisocial, scattered haired and bearded people. Many people also believe that scientific studies are mostly mysterious and stand-alone activities (Barman, 1997). Again in these studies, it is emphasized that stereotyped judgements in science begin with early childhood, and that if it is not changed with development of individual they turn into stereotype judgements (Chambers, 1983; She, 1995; Newton & Newton, 1992; Fung, 2002; Güler & Akman, 2006; Ayvaci, Atik & Üreyir, 2016).

According to Darling-Hammond (2000) and Stronge (2002), even though different factors are effective on student success, the most effective one is teachers. The qualifications of the teacher who will implement the curriculum is of key importance in ensuring the desired development of students, it does not matter how good the text books or the course materials are. Transfer of the false / incomplete cognitive or affective information from teachers to students can be an important problem (Eryaman, 2007; Rosenthal, 1993). For this reason, teachers are expected to have good content knowledge. Determining the perceptions of teacher candidates who are still in the learning process on science can give insight into both picturing their mental images and organizing the teacher education program. In this context, this study aimed to determine the perceptions of the social studies teacher candidates about science, scientists and scientific research. Studies in the field of social studies education seem to be extremely inadequate in the literature. There is no study in the literature which addresses the concepts of science, scientists and scientific research all together. Moreover, when the studies carried out in the literature are examined, it has been found out that science is mainly addressed with perspectives of natural scientists (Nuhoğlu & Afacan, 2011; Küçük, 2006; Bıyıklı et. al. 2014; Barman 1999; Kaya, Afacan, Polat & Urtekin, 2013; Uslu et. al. 2016). Limiting science to natural sciences causes the problem of limiting scientists to naturalists. The difference of this study from other studies in the literature is that in this study scientificness is described and examined in the eyes of teacher candidates who are studying social sciences which is a part of science, but usually ignored, and who will carry out their profession in this respect. In this context, it is also aimed to fill the gap in the literature with this study.

The main purpose of the research is to determine the social studies teacher candidates' perceptions on the topics of science, scientific research and scientists. In the related study, the answers to the following questions are searched:

1. Under what categories are mental images (metaphors) which social studies teacher candidates have with regard to the concepts of 'science, scientists and scientific research' collected?
2. How do social studies teacher candidates define the concept of 'science'?
3. What are the characteristics of 'the scientists' according to social studies teacher candidates?
4. Who are the "Turkish scientists" examples of social studies teacher candidates?

5. Who are the 'foreign scientists' examples of social studies teacher candidates?
6. From what sources do the social studies teacher candidates learn about examples of 'scientists'?
7. What are the most important barriers before the scientific research in Turkey according to social studies teacher candidates?
8. What is the most important course in bringing scientific knowledge and values to secondary school students according to social studies teacher candidates?

Method

Qualitative research approach has been followed in this study. Qualitative research is the studies which aim at presenting a rich and integrated picture of people's experiences and perceptions and use different data sources to achieve this aim (Miles & Huberman, 1994; Creswell, 2012).

Participants

Senior teacher candidates from the social studies teaching department in one of the universities in Ankara participated in the study. The study was conducted in two different stages. The information regarding the participants taking part in different stages of the study is shown in table 1.

Table 1. Information of participants

			f	%
1st Stage	Gender	Women	54	58
		Men	38	41
		Total	92	100
2nd Stage	Gender	Women	28	60
		Men	17	40
		Total	45	100

In the first stage of the study, a metaphor form was applied to teacher candidates. A total of 92 teacher candidates, (54 females and 38 males) participated in this study. In the second stage of the study, teacher candidates were interviewed. A total of 45 teacher candidates, (28 females, and 17 males) participated in the second stage of the study. All of the participants of this study were the last year teacher candidates.

Data Collection Tools

The data of the study was collected in the spring term of 2016-2017 academic year. In the study, the data was collected through both metaphor form and semi-structured interviews. In addition, data triangulation method was used.

The Form of Data Collection through Metaphor (Figures of Speech): The forms of data collection through metaphor used by different researches (Saban, 2008; Saban, 2009; Öztürk, 2007; Ulusoy, 2013; Kılcan & Çepni, 2015) in the literature to determine the perceptions of social studies teacher candidates for the topics of science, scientific research and scientists were examined. Upon expert opinions, three different concepts were determined and 'The Form of Data Collection through Metaphor' was created. In the first part of the form, gender and age of participants were included. The second part of the form the sentences such as "*Science is like". Because "*, "*Scientific research is like Because "And" Scientist is like Because "* took place. Nine

teacher candidates studying in the 3rd grade participated in the pilot application of the '*Form of Data Collection through Metaphor*'.

Interview Form: A draft of interview form was developed to be used in the study as a result of literature review. The draft form contains 12 questions. Three questions of the draft form considered to have the same content and two questions considered out of context were removed from the form upon expert opinions. Four teacher candidates studying in 3rd grade of social studies department participated in the pilot study of the research. Following the pilot study, a question was revised and the interview form was finalized.

Data Analysis

The main study of the research was carried out with 92 teacher candidates studying in the department of social studies teaching in one of the university in Ankara in the spring term of 2016-2017 academic year. After informing teacher candidates about metaphors, the forms were distributed. Teacher candidates fulfilled these forms in 20-25 minutes. The method used by Saban (2008) was followed in the analysis of collected metaphor forms. In the analysis phase, all metaphor forms were first listed with a sequence number. Following the initial codings, the forms which do not generate metaphors or blank forms were excluded from the scope of the study. Metaphors were re-listed by getting classified under certain categories according to their common characteristics. Then sample metaphors representing the categories were identified. As a result of this analysis procedure, it was determined that 82 metaphors on the concept of science; 87 metaphors on the concept of scientist and 55 metaphors on the concept of scientific research were developed.

To obtain the '*plausibility and accuracy*' of the findings, the following procedure was followed: First all processes within the research have been explained in detail. In addition, some of the metaphor examples generated by teacher candidates have been presented directly with quotations in the findings section. In order to ensure consistency between the codings in the study, the formula developed by Miles and Huberman's (1994:64) formula (Reliability: $\text{number of agreements} / \text{total number of agreements} + \text{disagreements}$) was used. Support of a faculty member working in the faculty of education was received with this regard. Both metaphor lists and the conceptual category lists were presented to the faculty member as a specialist. As a result of matching of both lists by the faculty member; it has been found out that the consistency rate in the coding for the concept of science is 98%, the consistency rate in the coding for the scientific research concept is 95% and the consistency rate in the coding for the concept of scientist is 96%. Number of participants with regard to metaphors developed by teacher candidates was identified (f) and presented in the findings section.

After the analysis of the metaphor data, interview data started to be collected. Semi-structured interviews were conducted with 45 teacher candidates who volunteered to take part in the research after getting informed about this stage of the research. Interviews were held in the empty classrooms and in researchers' rooms in the faculty of education. Each interview took approximately 10-15 minutes. The interviews were recorded after taking permission from the teacher candidates. In the analysis of the interview data, the content analysis technique was used. Interview data was transferred to computer environment and data was coded. Participants' explanations for research questions were grouped under certain categories according to their similar characteristics. After the analysis of the interview data, the faculty member working in the faculty of education was asked for help again. The formula developed by Miles and Huberman's (1994:64) formula was used again for the consistency rate between the codings of expert and the researcher. The consistency rate between the codings of two researchers was determined as 96%. Teacher candidates' opinions were also presented directly with quotations in findings section.

Findings

In this section of the study which tries to describe the perceptions of the social studies teacher candidates who are one of the important partners in training younger generations on science, the analysis of the metaphors developed by teacher candidates and then the opinions of the teacher candidates were presented.

The mental images (metaphors) that social studies teacher candidates have about the concepts of science, scientists and scientific research (metaphors)

Table 2. Science according to the mental images of social studies teacher candidates (f = 82)

Categories	Image and frequencies of metaphors
Science as a guiding factor:	Book (f = 5), sun (f = 4), school (f = 3), teacher (f = 2) and Atatürk (f = 1)
Science as an indispensable factor:	Water (f = 4), oxygen (f = 3), love (f = 3), lemon tea (f = 1), justice (f = 1), heart (f = 1), Vitamin D (f = 1) and brain (f = 1)
Science as eternity:	Nature (f = 3), ocean (f = 3), space (f = 3), sea (f = 1), bottomless well (f = 1), universe (f = 1), Sahara Desert (f = 1) and endless road (f = 1)
Science as a factor composed of many pieces:	Pomegranate (f = 3), human (f = 3), hodgepodge (f = 1), mixed fruit juice (f = 1), paper marbling (f = 1), pizza (f = 1), waffle (f = 1), salad (f = 1) and vegetable garden (f = 1)
Science as a questioning factor:	Curious neighbours/relatives (f = 4), child/baby (f = 4) and detective (f = 2)
Science as a changing factor:	Nature (f = 2), computer software (f = 2), trend (f = 2), evolution (f = 1), telephone (f = 1) and frog (f = 1)
Science as a factor of unknowns:	Space (f = 1), nature (f = 1), deserted island (f = 1) and women (f = 1)
Science as an entertainment factor:	Puzzle (f = 1) and game (f = 1)

It has been found out that teacher candidates generated 82 metaphors in 8 different categories regarding the key concept of 'science'. When metaphors with the meanings attributed to the concept of science by social studies teacher candidates are examined, it is seen that one of the most generated metaphors is in the category of '*Science as a Guiding Factor*'. One of the metaphors developed in this category is as follows: "Science is like the sun. Because science, sheds light on societies like the sun that enlightens around." One of the most generated metaphors by the participants is in the category of "Science as Indispensable Factor "category. Participants in this category seem to emphasize the necessity of science for life. The metaphor that a participant has generated for this category is as follows: "Science is like a heart. Because both are necessary for survival of the society and human beings." Fourteen participants have linked the science to the notion of '*Infinity*' in the metaphor they generated. One of the metaphors generated in this category is as follows: "Science is like a bottomless well. Because it is not known where bottomless wells will end. Science is like that. Every day, every second, new things to search for come out. It is like it will never end." Thirteen of the participants made reference to the fact that science came into existence through aggregation of different pieces. One of these metaphors developed in the category of '*Science as a Factor Composed of Many Parts*' is as follows: "Science is like pomegranate. Because even though it looks like one piece, there are such fields in science like physics and chemistry like pomegranate. Because science is a whole of different branches of science." It is seen that the metaphor of the 10 teacher candidates who participated in the study paid attention to the questioning nature of the science concept. For example, a teacher candidate

expressed his thoughts for this category as follows; "Science is like a curious neighbour. Because the curious neighbor is curious about everything, just like science, it searches, questions and wants to learn everything in detail." It is seen that the 9 teacher candidates who participated in the study emphasize the change of science with metaphors they generated about the concept of science. In these categories, it is possible to see the traces of the idea that science progresses cumulatively. One of the metaphors generated under this category is as follows: "Science is like evolution. Because it has developed over time. It is shadow of itself. Everyone has added something to it." In the metaphors they generated, 4 participants referred to the fact that science contains unknown within itself. One of the metaphors generated under this category is as follows: "Science is like a woman. Because no matter how much information you have, you do not know anything about her anyway. Both have many unknowns." In metaphors developed by 2 participants, it has been found out that they perceive science as an entertaining work. The metaphor that a participant generated for this category is as follows: "Science is like a puzzle. Because puzzle and science also delight people. Both are fun. You never want to stop doing it once you start".

Table 3. Scientists according to mental images of social studies teacher candidates (f = 87)

Categories	Image and frequencies of metaphor
Scientist as an illuminating person:	Sun (f = 4), teacher (f = 4) school (f = 3), library (f = 3), Google (f = 2), torch (f = 2), book (f = 2), educated person (f = 1), lamp (f = 1), star (f = 1) and compass (f = 1)
Scientist as a hardworking person:	Ant (f = 5), robot (f = 2), bee (f = 2), machine (f = 2), watch (f = 2), long marathon runner (f = 1), cow (f = 1), smart phone (f = 1) and atom ant (f = 1)
Scientist as a curious person:	Baby/child (f = 5), mother (f = 5), curious neighbours (f = 1), lie detector (f = 1), judge (f = 1) and younger sister (f = 1)
Scientist as a wise person:	Book (f = 5), computer (f = 3), encyclopedia (f = 2), sea (f = 1), smart phone (f = 1), Newton (f = 1) and Albert Einstein (f = 1)
Scientist as a leader:	Queen bee (f = 2), captain (f = 2), class president (f = 1), president (f = 1), shepherd dog (f = 1) and tourist guide (f = 1)
Scientist as an objective person:	Robot (f = 4) and mirror (f = 2)
Scientist as a determined person:	Goat (f = 1), Turkish people (f = 1), very patient person (f = 1) and high flow river (f = 1)

When we look at table 3, it is seen that the participants generated 87 metaphors in 8 different categories regarding the key concept of '*scientist*'. When metaphors with the meanings attributed to the concept of scientist by social studies teacher candidates are examined, it is seen that one of the most generated metaphors is in the category of '*Scientist as an illuminating person*'. One of the metaphors developed in this category which emphasizes that scientist informs and guides society is as follows: "The scientist is like a book. Because it enlightens humanity with its content." It is seen that 17 of the participants emphasizes in their metaphors that scientists work hard. One of the metaphors in question is as follows: "The scientist is like a long marathon runner. Because both of them keep working without ceasing. Lazy people are not interested in marathon, they cannot also run marathon." The 14 teacher candidates who participated in the study seem to pay attention to the concept of curiosity, one of the characteristics of scientists, in the metaphors they generate. A teacher candidate for this category says; "The scientist is like curious neighbours. Because they follow everything around them with great curiosity and try to learn and find out everything. It is their duty to ask, examine, investigate and disseminate their findings with great pleasure. Just like a scientist." According to the 14 teacher candidates, scientists should have a good knowledge of different branches of science. One of the metaphors generated under the relevant category is as follows: "The scientist is like Albert Einstein. Because all the scientists have to be as wise as him. Astronomy, mathematics, physics, chemistry ... They need to know about everything." One of the metaphors in the category of '*Scientist as a Leader*' developed by 8 participants emphasizing leadership characteristics of a scientist is as follows: "Scientist is like a queen bee. Because she manages all the bees. Scientists also manage society through their inventions." Six participants emphasized in their metaphors that the scientists should carry out their studies objectively without being affected by the society, the point of view of life, and

the age they live in. One of these metaphors expressing that the scientist should be objective is as follows: "Scientist is like a mirror, because he conveys what they find and say to other people as is. Neither more nor less! Although it is against the religion and values of his country, he acts as a mirror in their studies." It is seen that in the expressions of the four teacher candidates who generate metaphor for the concept of the scientist, teacher candidates have pointed out that scientists focus on completing their studies in the face of the challenges they face. One of the examples of the relevant category is as follows: "Scientists are like high flow rivers. Because they will arrive the point they desire in the end last. High flow river will overcome even the hardest rocks just like scientists with constant work. Both of them have endless effort."

Table 4. Scientific research according to mental images of social studies teacher candidates (f= 55)

Categories	Image and frequencies of metaphor
Scientific research as a challenging field of work:	Climbing Everest (f = 3), walking on icy road (f = 3), finding the way in maze (f = 1), exercising (f = 1), searching for a needle in a haystack (f = 1), picking raspberry from bush (f = 1) and weaving rug (f = 1)
Scientific research as a field of work requiring labor:	Raising children (f = 6), doing project homework (f = 2), embroider (f = 1), painting an art of picture (f = 1) and writing a novel (f = 1)
Scientific research as a systematic field of work:	Cooking (f = 3), Earth revolution (f = 1), mother (f = 1), human body (f = 1), constitution (f = 1), elevator (f = 1), engineering work (f = 1) and old men (f = 1)
Scientific research as a universal field of work:	Music (f = 4), Declaration of Human Rights (f = 1), body language (f = 1) and paintings of Picasso (f = 1)
Scientific research as an uncertainty factor:	Game of chance (f = 3), easter egg (f = 1), meeting the lover in the story (f = 1) and stairs (f = 1)
Scientific research as a factor of passion:	Smoking (f = 3), losing weight (f = 1), love (f = 1) and cooking (f = 1)
Scientific research as a field of work requiring attention:	Brain surgery (f = 1), juggler (f = 1) and driver (f = 1)
Scientific research as a field of work with different solutions:	Rubik's Cube (f = 1)

When we examine table 4, it is seen that the teacher candidates developed 55 metaphors related to the key concept of '*scientific research*' in 8 different categories. It has been determined that 11 teacher candidates participating in the research perceive the concept of scientific research as a challenging field of work. One example of a metaphor representing this category is as follows: "Scientific research is like picking raspberries from the bush. Because it is like reaching sweet and correct knowledge through thorny and difficult paths." Again, the same number of the participants described the scientific research as a field of work requiring intensive study and labor in the metaphors they developed. One of the metaphors generated in this category is as follows: "Scientific research is like raising a child. Because it requires a lot of effort and sacrifice. It requires much effort. It requires working insistently." One of the metaphors developed in this category by 10 participants who perceive the concept of scientific research as a systematic field of work is as follows: "Scientific research is like an elevator. Because the elevator has to pass each and every floor one by one. It cannot omit 2nd, 3rd and 4th floors when going up from 1st to 5th floor. There is time and place for everything in scientific research. Scientific researches are systematic." It has been determined that the 7 teacher candidates participating in the study perceive the concept of scientific research as a universal work. One of the metaphors representing this category is as follows: "Scientific research is like music. Because it is universal. It is valid everywhere in the world. Scientific researches are also like that, it is valid everywhere in the world." Six of the participants referred in their metaphors they generated to the fact that that scientific research results do not always give desired results. One example the metaphors in question is as follows: "Scientific research is like a game of chance. Because you play one game and you win. Another day you play 100 games, you cannot win. The result will never be clear beforehand. You either loss or win ... Scientific research is also like that. You hit the road with

great enthusiasm without knowing the result. Sometimes you get happy and sometimes disappointed." Six of the participants emphasized in their metaphors they developed that scientific research turns into a passion for scientists. One of the metaphors developed under the category of '*Scientific Research as a Factor of Passion*' is as follows: "Scientific research is like smoking. Because cigarette attracts you such that you cannot even notice. Scientific researchers cannot let themselves go, once they lose themselves in the study, they become like smokers. One study ends, and they start another study like lighting another cigarette..." It has been determined that some of the teacher candidates ($f = 3$) refer in their metaphors they develop to the necessity that scientific research needs to be done with care. One such metaphor example is as follows: "Scientific research is like brain surgery. Because neither of them accepts the slightest mistake. Both of them requires being very careful and attentive." One teacher candidate who participated in the research emphasized that various solutions are found in scientific studies. A metaphor developed in the category of '*Scientific Research as a Field of Work with Different Solutions*' is as follows: "Scientific research is like a Rubik's cube. Because there is a number of different ways to solve it. Many research types and methods can be used in a study; but some are useful and some are useless. It is necessary to find the right path for the solution."

The following is the results of semi-structured interview data.

Social studies teacher candidates' definitions of science

In the study, firstly, teacher candidates were asked 'How do you define the concept of science?' It has been found that 27 of the teacher candidates could not give any definition about science. In this regard, it has been determined that 17 of the interviewed teacher candidates explain the features of science instead of defining it. For example, a participant defines science as follows: "If the outcomes are applicable in different places, at different times, it is a science." However, the expression of this participant is the repeatability of the feature of science. It has been found out that 3 teacher candidates defined science as the concept of technology and listed its features. One of the participants who expressed their views on this issue says: "It is the tools we use everyday as a part of life. In other words, it is like a television in a house and like a mobile phone used by a person." As it is understood from this statement, it has been determined that the participant perceives technology products produced in a serial manner based on scientific knowledge as science. For the same question seven teacher candidates reported that they cannot make any definition. Only 18 of the teacher candidates were able to define science. When the definitions are analyzed, it is seen that the positivist approach is dominant in the mental structures of the teacher candidates. The science definition of a teacher candidate is as follows: "Science is the study of an event as a result of experiments or observations and manifestation of facts."

Characteristics of scientists according to social studies teacher candidates

The question of "What are the characteristics of the scientists?" was asked to teacher candidates as the second question. The answers of the participants are shown in table 5. Since some of the teacher candidates gave more than one answer to this question, percentage scores were not calculated.

Table 5. Characteristics of scientists according to social studies teacher candidates:

Characteristics	f	Characteristics	f
Hardworking	42	Empathic	2
Curios	39	Being cultured	1
Objective	27	Perfectionist	1

Being inquisitive	17	Role model	1
Patient	15	Good commenter	1
Have a good command of experiment and observation methods	14	Thinks faster than other people	1
Determined	10	Confident	1
Open to innovation	9	Enterprising	1
Wise	7	Have a great imagination	1
Logical	7	Honest	1
Sharer	5	Skillful for everything	1
Have multi-perspective point of view	4	Loves his country	1
Devoted	4	Has teamwork skills	1
Positive	3	Creative	1
Produce solutions	3	Helpful	1
Disciplined	2	Ambitious	1
Consistent	2	Secretive	1
Careful	2	Responsible	1
Being crazy	2	Uses technology efficiently	1
Hyperactive	2	Does not suffer any allergic disease	1

When answers of the participants are examined, we see that everybody (93%) except 3 participants stressed the *'hardworking'* characteristics of a scientist. When we look at the other answers, another most frequently expressed characteristic of scientists is being *'curious'* (87%). When the answers to this question are examined, the effects of the positivist approach are found in the mental images of some teacher candidates. Science is carried out by experiment and observation method according to the teacher candidates shaping their scientist perceptions with the influence of positivist approach. For this reason, scientists must have a good command of experiment and observation methods. In the same way, a teacher candidate has stated that a scientist must have allergy tests in order to be able to carry out his or her studies. According to this teacher candidate, someone with an allergic disease will not be able to do experiment in the laboratory. Again, according to this teacher candidate, science takes place in the fields of natural science such as physics and chemistry. When the answers given by teacher candidates to the same question were examined, some participants expressed qualities not included in the literature such as being *'perfectionist, thinking faster than other people, being hyperactive, being skillful for everything, loving the country, being ambitious, being crazy, enterprising and being cultured'* have also been stated.

Social studies teacher candidates' examples about Turkish scientist

Another question for teacher candidates was "Can you give examples about Turkish scientists?" In this question, percentage calculation could not be done because some of them gave more than one answer. The answers of the participants are shown in table 6.

Table 6. Social studies teacher candidates' examples about Turkish scientist

Scientists	f	Scientists	f
Aziz Sancar	43	El Cezeri	2
Mehmet Öz	41	Gazi Yaşargil	2
Ali Kuşçu	18	İhsan Sıtkı Yener	2
İbni Sina	18	Ibni Rushd	1
Cahit Arf	17	Mimar Sinan	1
Farabi	14	Uluğ Bey	1
Ibni Khaldun	13	Feza Gürsey	1
Oktay Sinanoğlu	6	Gökhan Hotamışlıgil	1
Hazarfen Ahmet Çelebi	6	Harezmi	1
Mustafa Kemal Atatürk	3	Halil İnalçık	1
İlber Ortaylı	3	Gazali	1
Ömer Hayyam	3	Mustafa İnan	1
Akşemşeddin	2	Hulisi Behçet	1
Ekrem Akurgal	2	Mimar Sinan	1
Şerif Mardin	2	Cezmi	1

When we look at Table 6, it is seen that the participants gave names of 30 different Turkish scientists as an example. Particularly, a large majority of participants focused on Aziz Sancar (95%) and Mehmet Öz (91%), who perform their duties as medical doctors in the United States. It is seen that Ali Kuşçu and İbni Sina are given as examples by 18 different teacher candidates. Cahit Arf, having important studies the field of mathematics, has been given as an example by 17 different participants. One of the interesting findings of the study is that participants did not give place to female scientists in their examples of Turkish scientists. When table 6 is examined, it is seen that the scientists working on the field of social sciences remain much more in the background than those working in natural sciences.

Sources of social science teacher candidates' when giving examples of Turkish scientists

The participants were also asked about the sources of information they used when giving examples for scientists. According to teacher candidates, the media (f = 23) is very effective in acquiring information about scientists. Again, according to participants teachers (f = 12) and textbooks (f = 10) are effective in acquiring knowledge about scientists.

Social studies teacher candidates' examples about foreign scientist

Another question for the teacher candidates was 'Can you give examples about foreign scientists?' In this question, percentage calculation could not be done as some teacher candidates gave more than one answer. The answers of the participants are shown in table 7.

Table 7. Foreign scientist examples from social studies teacher candidates:

Scientists	f	Scientists	f
Albert Einstein	36	Ibni Rushd	3
Isaac Newton	28	Bill Gates	3
Thomas Edison	25	Marie Crue	4
Alexander Graham Bell	15	Neil Armstrong	2
Nikola Tesla	14	Hipokrat	2
Farabi	11	Henry Ford	2
Lois Pasteour	4	Aristoteles	2
Stephen Hawking	4	Steven Paul Jobs	1
Ibni Khaldun	4	Gregor Johann Mendel	1
Johann Wolfgang Von Goethe	3	Charles Robert Darwin	1
Galileo Galilei	3	Stephen King	1
Archimedes	3	Johannes Kepler	1

When the examples given by participants for 'foreign scientists' are examined, it is seen that, in total, they offered examples of 24 different scientists. It has also been found out that the participants did not give examples of female scientists other than Marie Crue. It is seen that Albert Einstein (36 different participants), Isaac Newton (28 different participants) and Thomas Edison (25 different participants) are the most given examples. Steven Paul Jobs, Gregor Johann Mendel, Charles Robert Darwin, Stephen King and Johannes Kepler were given as an example by 1 participant in the study. In the question of foreign scientist, it is seen that the participants gave examples of scientists mostly working in the field of natural sciences.

Social studies teacher candidates' sources of information that they used when giving examples about foreign scientists

The question of "Where did you learn the information you gave about the foreign scientists" was asked to teacher candidates as another question. In this regard, all teacher candidates pointed to media (f = 45) and textbooks (f = 45). According to the participants, teachers (f = 33) are also an important source of information about foreign scientists.

The most important barriers for the scientific studies in Turkey according to social studies teacher candidates

The question of "the most important barriers for the scientific researches in our country" asked to the social studies teacher candidates. In this question, percentage calculation could not be performed, as some teacher candidates gave more than one answer. The answers given by teacher candidates are shown in table 8.

Table 8. The most important barriers before the scientific researches in our country according to social studies teacher candidates

Features	f
Required Financial Support cannot be Received	28
Dogmatic Thoughts	25
Institutions Supporting Science Deviate from their Aim	23
Limited number of institutions supporting science	17
Scientists are not respected	17

Foreign Powers	12
Insufficient creative thoughts	11
Limited number of scientists	4
Bureaucratic barriers	3
Laziness	3
Insufficient competition	1
War/Terrorist Incidents	1

According to the participants, one of the most important barriers for the scientific researches in our country is that the financial support cannot be transferred to the research. The limited number of institutions supporting science, and institutions supporting so called scientific studies rather than quality scientific studies were the most important problems for the participants. Some participants comparing the number of scientists in our country with the number of scientists in western countries have pointed out insufficient number of scientists as one of the barriers for the scientific research. Another issue raised by 12 different participants is that foreign powers do not want Turks to advance in the field of science. Eleven participants expressed that as a result of spreading of repetitive studies, original and creative ones lose their importance, and this is a barrier for the scientific studies. The lack of competition and the geographical proximity to war zones were expressed by the participants as a barriers to the development of scientific studies.

The most important course according to social studies teacher candidates to bring scientific knowledge and values to secondary school students

Finally, the participants were asked "Which is the top priority course in bringing scientific knowledge and values to secondary school students?" In this respect, 35 (78%) of the teacher candidates said science course, 5 (11%) said mathematics course and 5 (11%) said social studies course as the most priority course on science. It has been shown that this course is directly related to science on the grounds of the participants who primarily explain the science course.

Conclusion, Discussion and Recommendations

In this study, it is aimed to determine the perceptions of the social studies teacher candidates regarding the concepts of science, scientists and scientific research. For the detection of the perceptions, firstly teacher candidates were asked to generate metaphors for the relevant concepts. It has been concluded that metaphors developed by teacher candidates do not contain any negative perception. When metaphor images are examined, it has been concluded that the concept of science is generally perceived as guiding spirit and indispensable for life. For the concept of the scientist, the features that scientists enlighten around, work hard, being wise and curious are the categories emphasized by the participants. In the concept of scientific study, the categories that scientific research is difficult, it requires intensive labor and it is systematic has been brought to the forefront. These findings overlap with the findings of previous studies (Şenel & Aslan, 2014; Karaçam, 2015; Bıyıklı et. al. 2014; Boyraz & Kılıçer, 2017; Kırıl, 2017).

It is believed that this study has revealed some important results. The first result is the science definitions of participants. When the answers to the question of "How do you define the concept of science" were examined, it was determined that 60% could not define science. It has been found that some of the participants described features of science and some of them described features of technology as science instead of defining science. This finding is similar to the findings of the study conducted by Köksal and Çınar (2012). It has been concluded that those who define science made a definition in line with the positivist concept that is shaped by the principles of natural sciences. According to some participants science is the studies with invariable qualities, that can be repeated under any circumstance and where only experimental and observation methods are used. Similar findings are also seen in the answers given by the teacher candidates to the question of "What are the

characteristics of scientists?" Some of the participants stated that scientists should have a good command of experiment and observation methods and that they should not have any allergic disease in order to be able to carry out experimental studies. In the study carried out by Boyraz and Kılıçer (2017) studying in the Faculty of Economics and Administrative Sciences, it has been found out that that the perception of science is positivist. This result is consistent with the results of previous studies in the literature (Terzi, 2005; Çeliker-Deniz & Avcı-Erduran, 2015; Türk-Eyceyurt & Tüzün, 2017). According to positivist understanding, human behaviours can be explained by adapting principles and methods of natural sciences to social sciences. However, subjects covering dynamic human and its interactions are often too complex to be explained by the principles and methods of natural sciences. For this reason, positivist understanding is not considered appropriate for the structure of social sciences. According to Terzi (2005), the textbooks are effective in shaping science perception of participants studying social sciences in line with the positivist understanding. That is, concepts, theories and scientist examples presented in textbooks are suitable for positivist understanding. In the study conducted by Topçu and Karatekin (2017), the scientists given in textbooks of 4th, 5th, 6th and 7th grade published by different publishing houses were examined. It has been determined that only 20 of the 116 different scientists presented in the books are social scientists. In the same study, it has been determined that examples of scientific people and scientific expressions given in social studies textbooks are presented from the point of view of natural scientists who are compatible with positivist understanding. This finding also shows that reflection of social scientists and the scientists working in this field on the textbooks is also insufficient. It can be said that these inadequacies cripple importance of social sciences for the society and the recognition of social scientists. It may be suggested to give the concepts and examples of different disciplines in order to eliminate this situation arising from the textbooks (Rubin, Bar & Cohen, 2003). Just as social studies textbooks offer natural scientists as scientists, social science scientists and their studies can be included in science textbooks. Thus, the required social awareness in the field of social sciences can be increased.

The second important result of the study comes out in scientist examples of the participants. In fact, it is also thought that the scientist examples of the participants give important clues about the science, scientific research and scientist images. The most given examples for scientists by participants are Aziz Sancar ($f = 43$), Mehmet Öz ($f = 41$), Albert Einstein ($f = 36$), Isaac Newton ($f = 28$) and Thomas Edison ($f = 25$). In other studies carried out in the literature (Demirbaş, 2009; Kırıl, 2017; Boyraz & Kılıçer, 2017), we see that these scientists are on the foreground. Aziz Sancar, who is the most exemplified scientist by the teacher candidates, received the Nobel Prize in Chemistry in 2015 and he continues to work in the field of medicine. However, it can be said that his reputation in our country increased with the Nobel Prize in Chemistry. As a result of the study, it has been found out that Sancar was perceived by some teacher candidates ($f = 29$) as working in chemistry rather than medicine. Aziz Sancar also stated in interviews that he was surprised to receive a prize in the field of chemistry while he was expecting a prize in the field of medicine. It has been found out that even though both Aziz Sancar's awards and his statements took place in media he has not been properly positioned by the teacher candidates. Boyraz and Kılıçer (2017) states that rewarding is effective in increasing the recognition of scientists. However, it can be said that the rewarding is accompanied by some mistakes even though it increased recognition of Aziz Sancar. Again, in the study some of the participants were found to be confused about the origins of scientists such as Farabi, Ibni Rushd and Ibni Khaldun. For example, Ibni Rushd was presented by 3 participants as foreign and 1 participant as a Turkish scientist. Likewise, Farabi has been stated by 14 participants as Turkish and 11 participants as foreign scientist. It is thought that such confusion is caused by conflicting knowledge presented in different textbooks. From the examples of foreign scientists given by teacher candidates, it is understood that such entrepreneurs as Steven Paul Jobs, Bill Gates and Henry Ford; and such litterateurs as Stephen King and Goethe are also perceived as scientists. These findings suggest that social studies teachers candidates have insufficient knowledge of scientists. The knowledge level of the participants was also found to be quite inadequate in the study conducted by Şimşek-Laçın and Şimşek (2010) with social studies teacher candidates.

Another interesting finding of the study is that none of the participants gave examples of Turkish female scientists. An example of a foreign female scientist is the Nobel Prize-winning Marie

Curie, stated by only four participants. In studies carried out in the literature, it is revealed that the perception of female scientists is similar among individuals of different age groups (Chambers, 1983; Fort & Varney, 1989; Barman, 1997; Barman, 1999; Narayan et. al., 2013; Finson et. al., 1995; Fung, 2002; Samaras et. al., 2012; Medina-Jerez et. al., 2011; Losh, Wilke & Pop, 2008; Newton & Newton, 1998; Rodari, 2007; She, 1998; Demirbaş, 2009; Küçük & Bağcı, 2012; Türkmen, 2008; Ürey, et. al., 2017; Karaçam, Aydın & Digilli, 2014; Aycay, 2011; Toğrul, 2000; Nuhoglu & Afacan, 2011; Boyraz & Kılıçer, 2017; Kırıl, 2017). It has also shown by different research results that women's visibility in terms of scientists is either too little or they are invisible at all. Moreover, it is thought that the concept of '*man of science*', which has been used for many years either in the national or international levels, is also effective in the formation of this stereotype (Türk-Eyceyurt & Tüzün, 2017).

Teacher candidates who indicated that their views came from the media, textbooks and teachers as sources of information on scientists. This result is consistent with the literature (Losh, et. al., 2008; Newton & Newton, 1998; Rodari, 2007; She, 1995; Song & Kim, 1999; Steinke, 1997; Schibeci & Sorasen, 1983; Güler & Akman, 2006; Türkmen, 2008; Küçük & Bağcı, 2012; Şenel & Aslan, 2014; Karaçam, 2015; Demirbaş, 2009). In the literature, it is thought that the media is effective in raising awareness about scientists, but it also causes some misconceptions (Güler & Akman, 2006). The fact that scientist typology given in movies, series or advertisings which is marginalized, naturalist and male is at the forefront of the most criticized topics. On the other hand, marginalized, naturalist and male gender perceptions found in the participants' mental images in this study support this criticism. In addition to all these, it is thought that the media has an important function in both positioning and marketing (Boyraz & Kılıçer, 2017). The best proof of this is the example of Aziz Sancar, Mehmet Öz and İlber Ortaylı. It is also seen that the scientists doing well in their own fields find more space in the media and this increases the people's interests in scientists.

Textbooks, considered as one of the most important cornerstones in the science perception, have been focus of intense debates recently. Topçu and Karatekin (2017) conducted studies examining social studies textbooks, and Şimşek-Laçın (2011) conducted studies that examine science course textbooks. Both studies have criticized the fact that the perception of science presented in the books is Western-style and books contain incorrect content. In this context, it is thought that the adequate and correct positioning of the science by media, textbooks and teachers in cooperation is important.

The third important outcome of the study came out from the answers of participants to the question of "What are the characteristics of the scientists?" Two studies conducted by Toğrul (2000, 2013) revealed that scientist perception of individuals turns into a more realistic structure over time. However; some characteristics attributed to scientists by teacher candidates participating in the research such as "*being crazy, being secretive, being hyperactive, thinking faster than other people, being perfectionist, being skillful in every subject*" show that they are still far from realistic perception. On the other hand, characteristics such as '*being hardworking, being curious, questioning, being patient and being creative*' show parallelism with the findings of previous studies (Boyraz & Kılıçer, 2017; Fidan-Kurtdede & Konak, 2016; Türk-Eyceyurt & Tüzün, 2017; Kaya, et. al. 2013; Nuhoglu & Afacan, 2011).

The fourth and most important result of the study is that social studies teacher candidates, who will be a teacher of a social science focused more on science and gave priority to sciences course (78%) rather than social studies course. It is thought that this situation should be emphasized and investigated in depth. Because, this result also shows that social studies teacher candidates ignore the Science Technology and Community learning field presented with 18 different objectives from the 4th to the 7th grade. In some of the studies carried out in the literature, it is seen that science is related to pure natural sciences (Beardslee & O'Dowd, 1961; Chambers, 1983; Barman, 1999; Narayan et. al, 2013; Samaras et. al, 2012; Medina-Jerez, et. al., 2011; Küçük, 2006; Newton & Newton, 1998; Rodari, 2007; Song & Kim, 1999; She, 1998; Nuhoglu & Afacan, 2011; Uslu, et. al., 2016; Kaya, et.al., 2013). Ağlarıcı and Kabapınar (2016) have found out in their study that the chemistry teacher candidates relate science to the natural sciences. The researchers have also made room for social

scientists in the minds of chemistry teacher candidates with the activities they have carried out. Similar studies will also be useful in the field of social studies teaching.

The social studies teacher candidates participating in this study took 'Essentials of Social Studies', 'Archeology', 'Sociology', 'Social Psychology', 'Economics', 'Anthropology', 'Scientific Research Methods', 'Science, Technology and Social Change' and 'Data Analysis in Social Studies' respectively during their education. However, the results of this study also show that teacher candidates have some deficiencies and mistakes in the abovementioned issues. Therefore, it can be suggested that the relevant courses should be strengthened in the context of social sciences so that relevant courses can achieve their goals better.

This study was conducted with the final year undergraduate teacher candidates continuing their education in Ankara. Similar studies can be designed to be conducted by recruiting the first and final years of the teacher candidates so that the results can be compared. In this way, the effectiveness of the education process can be evaluated. In addition, the science, scientist and scientific research perceptions of the teachers who are currently working in the branch of social studies can also be determined. The findings of this research reveal that social studies teacher candidates do not have sufficient and correct perception in the subjects of science, scientists and scientific research. Similar studies can also be conducted with teacher candidates studying history, geography, literature and philosophy who will serve to bring social sciences to future generations. The results can be compared and required arrangements can be made in teacher education in the field of social sciences.

There is no doubt that it is wrong to perceive science as two different poles in the form of social and natural sciences. It is thought that it is important to research and understand the people living in this nature as much as researching and interpreting the nature (Boyraz & Kılıçer, 2017). As mentioned in the introduction section of the study, in the literature, there is a lack of social science perspective on science. This research is thought to contribute to this absence. It is also thought that it will give idea to social scientist to study science, scientists and scientific research in the future. As a result, there is no defense of a sole scientific field in this research; on the contrary, it is emphasized that science should be perceived as a whole, and social sciences should be given the value it deserves.

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Reflective Teaching Practices in Teachers and their Attitudes toward Professional Self-development

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Abstract

This study aimed to investigate the levels of teachers' reflective practices as well as their attitudes toward professional self-development in relation to various variables, including gender, number of workshops attended and experience. The study sample consisted of 162 teachers who work as teachers at a number of private schools in Amman. Two scales have been used in this study; the first questionnaire consists of (28) items to measure teachers' reflective practices in 6 dimensions. The second scale consists of (18) items to measure the attitudes-towards-professional-development. Results found that the level of teachers' reflective practices on the scale as a whole were within an 'acceptable' level; however, their practices in the subcategory of "appreciating criticism" were below acceptable. Findings indicated that teachers' attitudes toward professional development were positive. Findings further revealed a strong correlation of 0.485 between the reflective practices and the attitudes toward self-development in teachers.

Keywords: Reflective teaching Practices, Professional self-development, attitudes

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Introduction

The rapid changes and the nature of this developing modern society have given rise to new challenges, yet renewed calls for further improvements. In this light, many have voiced the urge for educational reform of schools and teachers, so that they may become capable of facing the current challenges, and fulfill the first and foremost objective of education: preparing all students, regardless of their abilities, to face a continuously-changing world, and empowering them to participate in developing their societies armed with high levels of academic and intellectual abilities, in addition to developing students' learning skills to become life-long learners (Sellars, 2012).

Due to this, it was of important for teacher-preparation administrators to turn away from traditional ideas in preparing teachers, and focus intensely on more modern approaches which emphasized the importance of preparing teachers and developing them professionally, so that they gain familiarity with content and how to teach it, what students are like, how students learn, and who teachers themselves are and what their values, in addition to teachers' abilities to reflect and make moral decisions. In other words, teacher preparation programs have moved from mastery techniques and learning the theoretical principles in favor of familiarizing teachers with analytical and reflective norms in teaching. Technical competences are considered a precondition for reflection, since acquiring these aids teachers in practicing additional analytical thinking (Korthagen & Wubbels, 1995). Preparing teachers in the light of reflective practices approach focuses on enhancing their performance as a result of reflecting on their classroom practices (Eryaman, 2007, 2009; Belviset al, 2013).

Reflective practices are one of the more vital fields which have been researched and discussed in the corpus of educational literature since the dawn of the 20th century by John Dewey who focused on generating knowledge through reflection (McAlpine, Weston, Berthiaume, Fairbank-Roch & Owen, 2004). Dewey pointed to the presence of three attitudes as prerequisite for reflective action: open mind, responsibility, and wholehearted (Eryaman & Bruce, 2015; Grant & Zeichner, 1984).

According to John Dewey's ideas, reflective thinking is a process of giving meaning in which the individual can move from one experience to another with a deeper understanding of their relationship with a previous one. He also saw the process of reflection as a systematic process and way of thinking. He believed that it takes place in a society where interacting with others requires positive attitudes, and this increases the values of personal and intellectual growth of the person and others (Rodgers, 2002). To elaborate, he further suggests that reflection does not only prevent teachers from performing a routine or hasty activity, but also directs activities based on insight and proper planning according to the end-in-view which is known to a teacher, and which allows him or her to act in an intentional and planned fashion (Odeh, Kurt & Atamtürk, 2010).

The spotlight has given way to reflective practices in the past two decades, since they are a powerful component in any successful teacher preparation program. This is because these practices aid teachers and learners alike in their problem-solving and appropriate decision-making processes, in addition to encouraging their critical thinking (Odeh, Kurt & Atamtürk, 2010) and improving student academic achievement (Akbari, Kiany, Imani Naeeni & Karimi Allvar, 2008).

Schön is one of the leading researchers who suggested a model of in-service teacher training on the basis of developing teachers' abilities to practice reflective processes in teaching. Teaching is a quite complicated process, thus teachers are incapable of applying everything they have learnt without planning; instead, they are required to think, analyze, and reflect on every aspect of their teaching process. Teaching is not product of knowledge and skill acquired by the teacher alone, but is also an outcome of a teachers' thinking processes, conceptualization, and beliefs about teaching events taking place in the classroom (Schön, 1984).

According to Schön's model (1984), teachers possess the ability to think reflectively in the classroom about their teaching practices whether before, during, or after holding a class lesson. Furthermore, he proposes that when teachers practice reflective thinking, they become more aware of

classroom practices, thus more capable of analyzing, critical thinking, and self-assessment. This helps reassure teachers of the importance of making proper amendments to undesired behaviors, which inevitably leads to enhanced teaching practices and professional development, as well as enhancing students' learning process (Mustafa, 1992).

One could describe reflective practices as a process of problem solving and reconstruction of meaning, as well as subsequent reflective judgments as teachers experience with new activities. In other words, reflecting on new experiences leads teachers to learn and cognitive development while abstaining from reflection could lead them to become dependent on routine teaching where teachers tend to accept the circumstances without posing any inquiries or questions (Efe, 2009). Reflective thinking enables individuals to evaluate previous knowledge and construct new knowledge with the help of experiences, thus helping teachers develop professionally (McAlpine, Weston, Berthiaume, Fairbank-Roch & Owen, 2004; Eryaman, 2008; Finlay, 2008).

Florez, (2001) asserts that reflective thinking is a process of four stages:

1. Collecting descriptive data of what is happening inside the classroom;
2. Analyzing collected data;
3. Planning the way in which activities are decided upon and what alternatives are available;
4. Evaluating the plan which would then contain a new perspective and perceptions aiming to improve teaching practices.

It could also be argued that reflection is a continuous formative evaluation process, as teachers gather and make use of feedback to review and improve their teaching process. A parallel exists between reflection and meta-cognitive thinking as it provides us with a cognitive structure which enables us to explain how individuals can modify and change their decisions and actions in a way which relates to their goals (McAlpine, Weston, Berthiaume, Fairbank-Roch, & Owen, 2004).

Using the reflective approach to develop teachers reinforces their inner doubt and dissatisfaction regarding what they do, which in turn encourages them to reflect on their actions, play the role of the researcher in collecting data, and use critical thinking to reach a deeper understanding of the problem, and thus develop appropriate solutions for it (Rayan, 2014).

A number of research papers on the subject suggest that it is best to encourage reflective practices among the most experienced teachers compared to novice teachers, rationed below:

1. The practices of more experienced teachers often depend on intuition, while novice teachers take each step carefully in a planned fashion when practicing teaching.
2. Experienced teachers are more willing to learn through reflection as they are rich with previous experiences.
3. It is difficult for experienced teachers to accept other peoples' ideas whereas novice teachers find it much easier to take in new ideas and incorporating them quickly (Efe, 2009).

Liston and Zeichner (1996) suggest a number of features which distinguish teachers that are practicing reflective thinking from others, which include:

1. Setting up frameworks and suggesting solutions to problems faced when performing classroom practices.

2. Being active in composing the goals and results of their actions, in addition to testing assumptions and values which he or she brings to teaching.
3. Playing a significant and active role in developing the school curriculum and the teaching reform movements.
4. Possessing numerous ideas, beliefs, and theories which contribute in reforming and improving teaching, since creating knowledge relatable to teaching is not exclusively preserved for universities, colleges or research centers.
5. Showing interest in and being attentive to, cultural and institutional contexts in which he or she works.

Various kinds of reflection are available for teachers to make use of: reflecting on the teaching and learning of students, on how effective their teaching decisions are, on teaching approaches and how to improve their practices, and on their cognitive awareness of reflective processes they are doing (McAlpine, Weston, Berthiaume, Fairbank-Roch & Owen, 2004).

Researchers have, in recent years, emphasized on the importance of professional development on teaching, mainly due to the fact that good teaching nowadays require providing students with sufficient and equal opportunities to learn, which in turn implies that teachers ought to possess the necessary knowledge and skills which enable them to provide such opportunities to their learners. In addition, teachers should be models to their students as life-long learners, and have enthusiasm and commitment toward continuous learning. Furthermore, the teaching profession demands that teachers become familiar with new updates emerging in their field of expertise in hopes of enriching their experience with time (Karaaslan, 2003).

Educational institutions worldwide have worked toward presenting teachers with programs meant to improve their performance inside the classroom while in service, so to enhance the quality of teaching. Two approaches or trends have appeared regarding professional growth and development: (a) the traditional approach which focuses on imitating the expert teacher, and (b) the other approach based on professionally developing a teacher through attending workshops and seminars, or professional self-development largely dependent on the personal initiatives taken by the teacher himself or herself achieved by self-learning, research activities, and reflective practices (Shaheen, 2012).

Drawing on what has previously been discussed, it can be seen that teachers' current professional development is no longer limited to in-service training, workshops, or short courses presenting new pieces of information to teachers in specific areas may be not relevant to their own work, but also consists of a long-term process which includes systematic opportunities and planner expertise meant to reinforce professional growth and development. Such endeavors view teachers as active constructive learners who partake in teaching, evaluation, observation, and reflection. Furthermore, professional development is a long-term process because teachers connect new experiences with previous knowledge. Professional development occurs in specific contexts which allow teachers to connect training experiences with those of real classroom experiences; also, teachers are regarded as active players which helps build new pedagogical theories and practices which doubtlessly aid them to become experts in the field, which highly improve performance (Villegas-Reimers, 2003).

Because of thus significance of reflective practices in developing teachers professionally, this paper aims to identify the level to which teachers use reflective practices and how that relates to their professional self-development and willingness to develop themselves career-wise.

Literature Review

Numerous studies conducted in the past, tackled the issue of teachers' reflective practices and their attitudes toward them. Furthermore, various studies have discussed teachers' attitudes toward professional development, while some others touched upon the connection which could be drawn between reflective practices and professional development. These studies can be split into three main groups, as follows:

Studies on reflective practices and teachers' attitudes toward them:

Tabassum & Malik (2014) have investigated teachers' attitudes toward reflective practices at private and public high schools in Pakistan. Their study aimed to explore teachers' attitudes toward the importance of reflective practices in teaching, as well as their attitudes toward utilizing such practices to better comprehend the difficulties students face during the learning process. Results indicated that teachers did not fully realize the need to have reflective practices to comprehend the difficulties their learners face.

Furthermore, Tok & Dolapçioğlu (2013) investigated how common reflective practices were found among primary school teachers in Turkey, using both qualitative and quantitative research methods for data collection. Their findings assert that teachers resort to using numerous reflective practices inside the classroom, yet fail at using practices that relate to appreciating students who express their thoughts freely which enabling students to deliver their criticism and opinions orally or in writing on teacher's classroom practices. In addition, the study found that teachers did not keep a daily record to document their professional development and effectiveness in teaching science.

Additionally, Ostaz (2011) conducted a study to unveil science teachers' abilities to practice reflective thinking in solving educational problems they may face in the classroom when completing teaching tasks in the primary stage, and whether the variables of gender, experience level, academic qualification, and type of institution they are employed at (public schools, UNRWA schools) had any effect on reflective thinking in Gaza. His study sample consisted of 108 teachers, whose responses were collected using a reflective thinking scale consisting of 9 teaching problems any science teacher could potentially run into when conducting educational tasks in class. The results indicated that teachers' levels in reflective thinking were below expected (below 70%), with significant differences on the experience variable in favor of more experienced teachers.

In another study conducted by Mustafa (1992) aimed to design a reflective thinking development training program for primary stage science teachers in Jordan, and how this would affect their teaching efficiency, the researcher specified seven indicators: (a) Class Management; (b) Planning; (c) Lesson Progress; (d) Organizing Activities; (e) Feedback, (f) the Interactive Process; and (g) Investing in the teaching and learning environment. With a study sample of 34 male and female teachers, findings indicated that such a program wielded great results in increasing the reflective thinking in teachers.

Studies on the relationship between reflective practices in teachers and their professional growth/development, critical thinking, and effective teaching.

Rayan (2014) conducted a study to investigate math teachers' reflective practices and how it relates to their teaching effectiveness using two scales for data collection; the findings indicated that teachers had a high level of reflective practices, in addition to unveiling statistically significant differences on the experience variable and in favor of teachers with low experience.

In a study aimed to identify the levels of reflective practices in faculty members at Al-Quds Open University and how this relates to their attitudes toward professional self-development, Shaheen

(2012) analyzed the responses of 117 participants. The findings revealed that participants in the sample had high levels of reflective practices, and no statistically significant differences were found in relation to academic qualifications, college, or years of experience; the results also revealed significant relationships between participants' attitudes toward professional development and their reflective practices.

Choy & Oo (2012) investigated the relationships between reflective thinking and critical thinking in teachers, attempting to pinpoint their levels of reflection as an indicator of their critical thinking levels. The findings indicated that the majority of teachers did not reflect on their teaching practices in depth, and did little to practice the four processes of learning: analysis of hypotheses, awareness of context, imaginative speculation, and reflection. Furthermore, the study found that teachers rarely practice critical thinking.

Furthermore, Giovannelli (2003) investigated the relationship between reflective disposition toward teaching and effective teaching on a sample of 55 teachers with the use of two scales: the first measures teachers' inclination toward reflection while the second measures effective teaching practices. The findings showed a statistically significant correlation between inclination toward reflection and effective teaching, especially when it came to teaching behavior, classroom organization, and teacher expectations.

Studies on teachers' attitudes and/or perceptions toward professional development

In 2003, Karaaslan conducted a study tackling teachers' perception toward professional self-development. The study explores the attitudes of the participants toward professional development and their perception regarding professional development activities, in addition to the factors which hinder professional growth and development. The researcher uses a questionnaire of both close and open-ended questions. Results indicated that teachers are aware of the importance of professional development and activities needed to grow professionally; however, they do not employ these activities in a way that matches the importance they previously assigned to them. Furthermore, findings indicated that female teachers, younger teachers, and those with less experience in teaching consider professional-development activities to be of great importance compared to their peers. Also, the study found that a number of factors may impede professional development, including a high work load, lack in self-motivation, and lack of support from the institution in which teachers work.

It became clear to us through previous studies that:

1. Studies have shown conflicting results regarding reflective practices and their levels in teachers participating as study samples (from high, to low, to being unaware of the importance of such practices).
2. Studies have shown conflicting results regarding the impact of a number of different variables on reflective practices; these include experience and academic qualification. A number of studies showed significant differences in teachers' professional practice levels on the experience variable, while others did not indicate any whatsoever.
3. Various studies used a number of different scales, tools, and methods to measure skills, including questionnaires, open questions, and analyzing teachers' personal documents.
4. A number of studies tackled the relationship between teachers' level of reflective practices and a number of variables, including critical thinking, professional development, and effective teaching.

This study is characterized by its interest in the connection between reflective thinking in private school teachers (cooperating with Petra University in teacher pre-service training programs) and their attitudes toward professional self-development.

Significance of study

The significance of this study lies in the following:

1. Highlights reflection practices as a contemporary approach for teachers' professional development and drawing teacher preparation institutions attention toward this.
2. It may drive researchers toward conducting further studies on developing reflective practices in pre-service and in-service teachers.

Study Problem and Questions

Teachers' professional development is, and remains, a major and significant factor in developing the teaching and learning process. It has attracted increasing attention in the past few years due to the accelerating cognitive development and the revolutionary changes taking place in the information communication sector. Such changes prompted teachers and educational institutions to improve the learning and teaching process through dedicated and continuous collaborative work. Various educational institutions worldwide have adopted reflective practices and professional self-development as a way to professionally develop and improve teachers so that they become empowered to face the current challenges.

Thus, this study aims to explore reflective practices in Jordanian teachers, and to investigate if these reflective practices are being implemented in teaching process. Furthermore, it works to unveil strategies used by teachers in the reflection process. In addition, it explores teachers' attitudes toward professional self-development and the effect of various variables on it, including gender, experience level, academic qualification, and number of seminars and workshops attended.

More precisely, the study aims to answer the following questions:

1. To what extent (or level) do teachers commit to reflective practices?
2. Does the level of reflective practices in teachers differ on the variables of gender, experience, and number of seminars attended during service?
3. What are teachers' attitudes toward professional self-development?
4. Is there a correlation between teachers' levels of reflective practices and their attitudes toward professional self-development?

Study Terminology

Teachers' Reflective Practices are constructive evaluative processes through which teachers may collect data and utilize feedback in reviewing and improving teaching. This enables teachers to review their previous knowledge and construct new knowledge based on previous experience they have undergone.

Teachers' Attitudes toward professional Self-Development are their ideas, conceptions, responses, and stances on self-reliance in their process of developing their knowledge, skills, and attitudes toward their teaching career.

Study Methodology

This study is based on the descriptive approach as that would be the suitable approach for studies which aim to describe and analyze a given phenomenon as it exists in reality through collecting needed data. Thus this study uses two scales to measure participants' reflective practices and professional self-development. Questionnaires were distributed and collected during the second semester of the academic year 2015/2016 at 10 private schools cooperating with Petra University in pre-service teacher training in Amman, Jordan.

Study Sample:

The study sample consisted of 162 teachers, both male and female, who work as teachers at a number of private schools in Amman, Jordan.

Study Tools:

The study tool consists of 3 main segments:

a) The first included personal data collected from the teachers, regarding their university major of choice, topics and courses taught to students, stage, gender, years of experience, academic qualification, and number of workshops/seminars attended.

b) The second consists of the Teacher Reflective Practices scale previously utilized by Tok & Dolapçioğlu (2013); this scale contains 28 items in 6 dimensions which include (1) creating a student-centered environment; (2) creating a reflective classroom environment; (3) appreciating criticism; (4) self-evaluation; (5) decision making; and (6) openness to professional development. The scale was translated into Arabic and presented to a collection of professionals to judge its consistency with the Jordanian environment culture as well as its linguistic soundness. Participants responded on a 5-dimensional response scale (always=5; usually = 4; hesitant = 3; sometimes = 2; and never = 1). An 80% score was considered to be the acceptable level teachers should have on this scale.

c) The third segment consisted of the Teacher Attitudes toward Professional Development scale. This scale has been designed after conducting a literature review on the subject (Yeung, 1998; Hamdan, 2011). Initially, the scale consisted of 22 items on teachers' attitudes toward their own professional self-development in their teaching career, and their willingness to attend seminars, pursue a post-graduate degree, or share and exchange experiences with their colleagues.

To confirm the validity of the questionnaire, it presented it to a group of expert judges for feedback on its appropriateness and linguistic soundness. In its final form, the Teacher Attitudes toward Professional Self-Development scale consisted of 18 items where participants responded on a 5-point Likert scale (Strongly Agree, Agree, Hesitant, Disagree, and Strongly Disagree). Each of these responses was given a score of 1-5, 5 being "Strongly Agree", and 1 being "Strongly Disagree". An average score of 80% was considered as "acceptable" for participants.

Furthermore, the reliability of the Teacher reflective practice scale was calculated using Cronbach's Alpha, with a reliability coefficient of 0.88 for the overall reflective practices. Reliability Coefficients for the six different dimensions of the scale were as follows:

Creating a student-centered learning environment: 0.70; Creating a reflective classroom environment: 0.69; Appreciating criticism: 0.52; Self-evaluation: 0.63; Decision making and problem-solving: 0.60; and Openness to professional development: 0.73. In addition, the Teacher Attitudes toward Professional Development scale had a reliability coefficient of 0.85.

Study Findings

To answer the first question (to what extent (or level) do teachers commit to reflective practices?), mean and standard deviation values were calculated for the overall Reflective Practices scale, as well as for each of its six dimensions, as shown in table (1):

Table 1. The Mean and Standard Deviation values for sample's scores on the Teacher Reflective Practices six dimensions.

	D1	D2	D3	D4	D5	D6	Total
	M(Std.)	M(Std.)	M(Std.)	M(Std.)	M(Std.)	M(Std.)	
Mean	4.43	4.33	3.75	4.32	4.23	4.00	4.2
std.	0.45	0.47	0.69	0.48	0.51	0.61	0.40

By viewing the data presented, we see that the sample had a mean value of 4.2 on the overall scale, which indicates that teachers practice or perform an acceptable level of reflective practices. Furthermore, the highest mean score (4.34) for the sample was on the first dimension ("creating a student-centred learning environment), whereas the lowest was on the third dimension (appreciating criticism) with a mean score of 3.75.

To more precisely grasp the levels of reflective practices on each of the six dimensions on the scale, mean and standard deviation values and frequencies of the sample's scores were calculated for each separate dimension, as presented below.

For the first dimension, "Creating a student-centred learning environment" the researchers calculated the mean and standard deviation values and frequencies for items no. 5, 6, 9, 10, 11, and 12 as shown in Table (2):

Table 2. Mean and standard deviation values and frequencies for the items measuring the first dimension on the scale: 'Creating a student-centred learning environment'

No.	Statement		Freq.	Percent%	Mean	Std.
9	When giving classes, I take care to relate the subject to students' daily life.	Always	105	64.8	4.5	0.69
		Often	41	25.3		
		Sometimes	15	9.3		
		Seldom	1	0.6		
5	I organize the learning/teaching process based on students' needs and skills.	Always	89	54.9	54.	0.62
		Often	62	38.3		
		Sometimes	11	6.8		
6	I appreciate students who express their opinions freely.	Always	92	56.8	4.4	0.70
		Often	50	30.9		
		Sometimes	20	12.3		
11	I evaluate the results of activities that students engage in as homework	Always	84	51.9	4.4	0.70
		Often	60	37.0		
		Sometimes	17	10.5		
		Seldom	1	0.6		
10	I engage students in a variety of activities (tests, homework, meeting with students, meeting with parents, etc) to assess students'	Always	85	52.5	44.	0.80
		Often	56	34.6		
		Sometimes	18	11.1		
		Seldom	1	0.6		

	learning levels.	Never	2	1.2		
		Always	81	50	44.	0.77
		Often	61	37.7		
12	I provide my students with feedback on their learning level.	Sometimes	17	10.5		
		Seldom	2	1.2		
		Never	1	0.6		
Total					4.43	0.45

As illustrated in Table (2), mean values of the teacher's scores in the sample were 4.43 on the first dimension, indicating that they had high reflective practices in this particular aspect. Furthermore, from the table above, we infer that 64.8% of the sample make it a habit to constantly relate the lesson to students' daily life while 50%-54.9% of the sample appreciate and acknowledge students who stand up for their own opinions at all times, constantly engage their learners in a variety of activities, keep record of commitment to homework, and ensure that the learning process is always properly planned according to students' needs and skills.

For the second dimension, 'Creating a reflective classroom environment', the mean, standard deviation and frequencies values were calculated for items no. 1, 2, 7, 18, as show in Table (3):

Table 3. Mean and standard deviation values and frequencies for the items measuring the second dimension on the scale 'Creating a reflective classroom environment'

No.	Statement		Freq.	Percent%	No.	Mean	Std.
2	I encourage students to express their topic-related emotions, interests, fears, and enthusiasm to me with honesty.	Always	113	69.8		64.	0.76
		Often	33	20.4			
		Sometimes	12	7.4			
		Seldom	3	1.9			
		Never	1	0.6			
1	I Create a democratic classroom environment so that students can express themselves freely	Always	79	48.8		44.	0.69
		Often	69	42.6			
		Sometimes	13	8			
		Seldom	-	-			
		Never	1	0.6			
7	I enable my students to take part in making classroom-related decisions.	Always	64	39.5		24.	0.76
		Often	64	39.5			
		Sometimes	34	21			
18	I acknowledge students' opinions on problems that could arise during the lesson.	Always	59	36.4		24.	0.74
		Often	75	46.3			
		Sometimes	26	16			
		Seldom	2	1.2			
Total						334.	70.4

As seen in Table (3), teachers' mean score values on the second dimension were 4.33, indicating high levels of reflective practices. Furthermore, 69.8% of the sample always encourage their students to express their emotions and interests about the subject, while 48.8% construct a classroom environment which enables students to freely express themselves at all times. However, only a small percentage of 39.5% of teachers engage their students in making classroom-related decisions at all times, and even a lower percentage of 36.4% acknowledge students' opinions regarding classroom problems at all times.

For the third dimension, 'Appreciating criticism', mean and standard deviation values, as well as frequencies, were calculated for items no. 3, 4, 26, and 27 as illustrated in Table (4).

Table 4. Mean and standard deviation values and frequencies for the items measuring the third dimension on the scale 'Appreciating criticism'

No.	Statement		Freq.	Percent %	No.	Mean	Std.
27	I take my colleagues' criticism of my teaching processes into account.	Always	52	32.1		3.9	0.97
		Often	60	37			
		Sometimes	38	23.5			
		Seldom	9	5.6			
		Never	3	1.9			
3	I enable my students to express themselves in evaluating my performance in the teaching/learning process orally or in text.	Always	45	27.8		3.8	0.99
		Often	59	36.4			
		Sometimes	42	25.9			
		Seldom	13	8			
		Never	3	1.9			
4	I change my teaching processes according to my students' evaluation.	Always	43	26.5		3.8	.960
		Often	57	35.2			
		Sometimes	50	30.9			
		Seldom	9	5.6			
		Never	3	1.9			
26	I ask my colleagues to continuously evaluate my teaching professes and attitudes.	Always	27	16.7		3.5	1.09
		Often	61	37.7			
		Sometimes	45	27.8			
		Seldom	19	11.7			
		Never	10	6.2			
total						3.75	0.69

As shown in Table (4), the mean score value of teachers on this dimension was the lowest with a value of 3.75 (i.e. below acceptable levels). Furthermore, the results show that only very few teachers stick to these evaluation processes (whether it is their students or colleagues evaluating them) at all times, ranging in between 16.7% to 32.1%. The findings thus indicate that 32.1% of teachers always take their colleagues' criticism in regards to their teaching process into account, while only 27.8% of teachers constantly empower their students to evaluate their performance whether orally or in writing. The results also show that 26.5% of the sample continuously change their teaching methods based on students' evaluation of them, and no more than 16.7% of all teachers participating in this study point out that they always ask colleagues to evaluate their performance, which indicates that they are not fully aware of the importance of such reflective practices in developing their teaching practices.

For the fourth dimension, 'Self-Evaluation', mean and standard deviation values, as well as frequencies, were calculated for items no. 8, 16, 20, and 28 as shown in Table (5).

Table 5. Mean and standard deviation values and frequencies for the items measuring the fourth dimension on the scale 'Self Evaluation'

No.	Statement		Freq.	percent	No.	Mean	Std.
8	I ask myself, "Are the practices I perform beneficial for my students/do they give better results when it comes to student learning?"	Always	79	48.8		64.	0.56
		Often	69	42.6			
		Sometimes	13	8			
		Never	1	0.6			
20	I explore my points of weakness and strength in teaching.	Always	90	55.6		54.	0.69
		Often	58	35.8			
		Sometimes	12	7.4			
		Seldom	2	1.2			
		Never	0	0			
16	I think several times before making a decision regarding the aims of learning and teaching, as well as the topics,	Always	70	43.2		34.	0.72
		Often	69	42.6			
		Sometimes	22	13.6			

	methods, techniques, evaluation methods, and making adjustments.	Seldom	1	0.6		
28	I do constant revising and pose questions regarding the educational practices I am using.	Always	48	29.6	.04	6.80
		Often	70	43.2		
		Sometimes	40	24.7		
		Seldom	1	0.6		
		Never	3	1.9		
Total					4.32	0.48

As presented in Table (5), the mean score value of the sample on the 'self-evaluation' dimension was as high as 4.32, and that up to 48.8% of participants always ask themselves whether the practices they are performing are beneficial for student learning or not, in addition to 55.5% who continuously review their own points of strength and weakness in teaching. Furthermore, the table shows that 43.2% of participants regularly indulge in deep thinking before making decisions in regards to the educational process, while only 29.6% of all teachers reflect on their educational practices on a regular basis.

For the fifth dimension, "Decision-making and problem-solving", mean and standard deviation values, as well as frequencies, were calculated for items no. 13, 14, 15, 17, 19 as shown in Table (6).

Table 6. Mean and standard deviation values and frequencies for the items measuring the fifth dimension on the scale "decision-making and problem-solving"

No.	Statement		Freq.	Percent %	No.	Mean	Std.
17	I identify the problems that occur during the lesson (students cannot fully grasp topic, failure to capture students' interest, failure to communicate).	Always	81	50	44.	0.70	
		Often	63	38.9			
		Sometimes	17	10.5			
		Seldom	1	0.6			
		Never	-	-			
13	I ask myself, "What are the changes which I could make when giving a particular lesson again in the future?"	Always	76	46.9	44.	0.70	
		Often	71	43.8			
		Sometimes	12	7.4			
		Seldom	3	1.9			
		Never	-	-			
19	I collect pieces of evidence which support my decisions made regarding the process of teaching and learning.	Always	64	39.5	4.2	0.74	
		Often	72	44.4			
		Sometimes	24	14.8			
		Seldom	2	1.2			
15	I think about alternative teaching methods or other viewpoints in this area.	Always	57	35.2	24.	0.73	
		Often	75	46.3			
		Sometimes	29	17.9			
		Seldom	1	0.6			
14	I ask myself, "What are the potential consequences of the changes I can do?"	Always	46	28.4	4.0	2.80	
		Often	79	48.8			
		Sometimes	29	17.9			
		Seldom	8	4.9			
		Never	7	4.3			
Total					34.2	510.	

Table (6) shows that the mean score value of participating teachers on this dimension was 4.23, where exactly half (50%) constantly seek to identify the problems arising in class (such as students facing difficulties in comprehending a certain topic, or failure to grab students' attention), and slightly less than half (46.9%) regularly ask themselves what changes they could apply when giving future lessons. However, only 39.5% of the sample regularly seeks to gather pieces of evidence which

support their learning/teaching process-related decisions, and no more than 35.2 % always think of alternative teaching methods which could be put into use. Not only that, but a strikingly low 28.4% of the sample asked themselves what potential effects could arise from the changes they apply in the classroom.

For the sixth and final dimension, “Openness to professional development”, mean and standard deviation values, as well as frequencies, were calculated for items no. 21, 22, 23, 24, and 25 as shown in Table (7).

Table 7. Mean and standard deviation values and frequencies for the items measuring the sixth dimension on the scale “openness to professional development”

No.	Statement		Freq.	Percent %	No.	Mean	Std.
21	I specify the fields in which I require development	Always	85	52.5		4.4	0.70
		Often	61	37.7			
		Sometimes	14	8.6			
		Seldom	2	1.2			
		Never	-	-			
25	I talk to my colleagues about what we will do in class, why we are doing it, and how effective these practices are	Always	60	37		14.	7.80
		Often	64	39.5			
		Sometimes	33	20.4			
		Seldom	3	1.9			
		Never	2	1.2			
24	I benefit from professional newsletters.	Always	49	30.2		3.9	0.92
		Often	52	32.1			
		Sometimes	51	31.5			
		Seldom	10	6.2			
		Never	-	-			
23	I constantly keep up with professional newsletters and new developments.	Always	45	27.8		3.8	0.93
		Often	53	32.7			
		Sometimes	55	34			
		Seldom	7	4.3			
		Never	2	1.2			
22	I keep a journal in which I document my professional development and shortcomings.	Always	51	31.5		3.8	1.12
		Often	50	30.9			
		Sometimes	39	24.1			
		Seldom	15	9.3			
		Never	7	4.3			
Total						04.	610.

In this dimension, teachers’ mean score value was no higher than 4.0, with more than half (52.5%) of teachers regularly identifying the fields in which they require further development and improvement, while only 37% discuss their classroom affairs with their colleagues and whether the practices used by them are effective. Furthermore, we notice that less than one-third of participants regularly follow or read professional newsletters, or benefit from them constantly. Furthermore, almost one-third (31.3%) keep a journal documenting their professional development.

To answer the second question (Does the level of reflective practices in teachers differ according to the variables of gender, years of experience and number of seminars and workshops attended during service?), first, mean and standard deviation values of participants were calculated for the overall test and its six dimensions separately on the gender variable. To determine if these results were significant, a t-test was conducted using the data, as shown in Table (8).

Table 8. Mean and standard deviation values of teachers' scores on the Reflective Practices scale on the gender variable.

	D1 M(Std.)	D2 M(Std.)	D3 M(Std.)	D4 M(Std.)	D5 M(Std.)	D6 M(Std.)	Total
Male n=22	(0.46)294.	(0.54)14.4	(0.70)33.8	(0.48)194.	4.05(0.55)	3.95(0.66)	4.12 (0.44)
Female n=140	5(0.4544.	(0.46)24.3	(0.69)33.7	(0.48)44.3	4.25(0.50)	4.00 (0.60)	4.20 (0.39)
T	-1.614	.8420	.6130	-1.363	-	-	-
					1.790	0.356	0.857
Sig.	.1090	.4010	.5410	.1750	0.07 5	0.72 2	0.39 3

From Table (8), the results show that the mean values of female teachers on the overall scale was higher than that of their male peers; their mean values were consistently high on the first, fourth, fifth, and sixth dimensions respectively. To investigate whether these results were significant, the t-value was calculated at $\alpha = 0.05$, meaning that there is no statistical significance.

Second, mean and standard deviation values of participants were calculated for the overall test and its six dimensions separately on the years of experience variable (ranging from low to intermediate to high), with the results shown in Table (9).

Table 9. Mean and standard deviation values of teachers' scores on the overall Teacher Reflective Practices scale and on each of its six dimensions on the years of experience variable.

Experience Level	D1 M(Std.)	D2 M(Std.)	D3 M(Std.)	D4 M(Std.)	D5 M(Std.)	D6 M(Std.)	Total
Low N = 75	4.37(0.48)	4.25(0.53)	3.77(0.66)	4.32(0.47)	4.19(0.50)	4.02(0.58)	4.17(0.41)
Intermediate N = 44	4.50(0.40)	4.43(0.39)	3.74(0.69)	4.36(0.51)	4.27(0.47)	4.00(0.62)	4.23(0.35)
High N = 44	4.47(0.44)	4.36(0.42)	3.70(0.76)	4.28(0.47)	4.25(0.57)	3.95(0.65)	4.18(0.42)

In table (9), it is evident that teachers with an intermediate level of experience had higher mean values on the first, second, and fourth and fifth dimensions respectively, as well as on the overall scale. The calculated f-value (using the ANOVA) however, indicated that there were no statistically significant differences related to the level of expertise teachers had (as shown in Table (10)) at $\alpha = 0.05$.

Table 10. Analysis of Variance for the statistically significant differences in teachers' means scores on the Reflective Practices scale on the experience level variable

		Sum of Squares	df	Mean Square	F	Sig.
Avg.	Between Groups	0.116	2	0.058	0.367	0.694
	Within Groups	25.247	159	0.159		
	Total	25.363	161			

Third, to investigate the effect of the number of seminars/workshops attended on teachers' level of reflective practices, mean and standard deviation values of participants were calculated for the overall test and its six dimensions separately on this variable (None, 1-5 seminars, 6-10 seminars, more than 10 seminars). Results are shown in Table (11).

Table 11. Mean and standard deviation values of participants' scores on the overall scale and its six dimensions on the no. of seminars attended variable (None, 1-5, 6-10, or More than 10)

Workshops/ Seminars Attended	D1 M(Std.)	D2 M(Std.)	D3 M(Std.)	D4 M(Std.)	D5 M(Std.)	D6 M(Std.)	Total
None N=54	4.37(0.52)	4.20(0.51)	3.65(0.77)	4.23(0.56)	4.19(0.53)	3.83(0.69)	4.09(0.45)
1-5 N=85	4.44(0.42)	4.36(0.46)	3.83(0.64)	4.36(0.43)	4.23(0.49)	4.09(0.53)	4.23(0.36)
6-10 N=14	4.46(0.44)	4.38(0.34)	3.61(0.72)	4.27(.41)	4.17(0.58)	3.97(0.61)	4.16(0.37)
More than 10 N=9	4.69(0.27)	4.75(0.18)	3.78(0.63)	4.56(0.63)	4.49(0.43)	4.13(0.45)	4.41(0.30)

Here, we notice that teachers who attended more workshops and seminars had a higher mean value on the overall scale and on all dimensions (save for the third), followed by teachers who had attended only 1-5 overall seminars. The f-value was calculated with the use of ANOVA as shown in Table (12), indicating no statistical significance in the data.

Table 12. Analysis of Variance for the statistically significant differences in teachers' mean scores value on the Reflective Practices scale on the no. of seminars attended variable

		Sum of Squares	df	Mean Square	F	Sig.
Avg.	Between Groups	1.088	3	.363	2.361	.073
	Within Groups	24.275	158	.154		
	Total	25.363	161			

To answer the third question, 'What are teachers' attitudes toward professional self-development? Mean and standard deviation values of participants on each item on the scale were calculated, as well as on the overall scale, as represented in Table (13).

Table 13. Mean and standard deviation values of participants' scores on the Attitudes toward Professional Self-Development scale

No.	Statement	Mean	Std
8	I believe that teachers should be open to new ideas or changes that occur around them.	4.68	0.51
7	I believe that the desire to develop skills is a strong factor affecting the professional development of a teacher.	4.62	0.53
9	Teachers should reflect on their teaching practices in order to improve professionally.	4.60	0.52
11	I believe that teachers should keep up with the changes and updates in the teaching-learning process.	4.58	0.54
2	I believe that teachers should play a leading role in their professional development.	4.58	0.52
6	I believe that teachers should help one another in finding solutions to their problems.	4.57	0.58
3	It is important for schools to allow teachers to experiment their ideas and new teaching techniques freely.	4.54	0.59
5	I believe that it is important for teachers to support one another in evaluating their teaching practices and pinpoint their points of weakness and strength.	4.53	0.59
15	I believe it is important for teachers to attend seminars/workshops on electronic learning and to keep themselves updated in this field.	4.52	0.61
1	I believe that it is the duty teachers to enhance their professional skills and familiarize themselves with the subjects being taught without depending on the educational institution in which they work.	4.52	0.76
12	I believe that teachers should not waste the opportunity to attend various seminars and workshops	4.50	0.60
4	I believe that teachers should collaborate with their administrators or technical supervisors in evaluating their educational skills and level of familiarity with courses being taught.	4.49	0.61
18	I believe that it is necessary for teachers to attend workshops and seminars so to have the chance of exchanging experiences with other teachers who share their field or speciality.	4.49	0.58
14	I believe that when teachers attend seminars and workshops, they work toward improving the quality of education.	4.47	0.65

13	I believe it is a teacher's duty to be acquainted with professional development programs, as to have the opportunity to participate in accordance with his or her own needs.	4.37	0.61
16	I believe it is important for teachers to willfully participate in exchange programs in order to pass on new and successful ideas to their own schools.	4.33	0.71
10	It is essential for colleagues to be granted the opportunity to attend classes for data collection purposes regarding a teachers' performance.	4.24	0.73
17	I believe it is the duty of a teacher to pursue post-graduate studies to attain higher academic qualifications in order to develop professionally.	4.14	0.92
Total		4.49	0.33

The table shows how teachers' attitudes toward professional self-development were high with a mean value of 4.49 on the Attitudes toward Professional Self-Development scales, in addition to mean values ranging from 4.14 to 4.68 on each separate item.

To answer the fourth question (Is there a correlation between teachers' levels of reflective practices and their attitudes toward professional self-development?), the researcher calculated the correlation coefficient between teachers' reflective practices and their attitudes toward professional self-development, resulting in a statistically significant correlation coefficient of 0.485 at $\alpha = 0.01$.

Discussion

The interest of researchers in reflective thinking has significantly grown in the past few decades, as many assert that developing one's abilities to reflect is a major component of any teacher preparation program, and is also an effective tool for developing teachers professionally (Efe, 2009).

Results of the research at hand indicated that the level of reflective practices in teachers was of an "acceptable" level. Results have also indicated that teachers possess the same level of reflective practices regardless of various variables, including gender, experience level, or number of seminars attended during service. In addition, findings suggest that teachers' attitudes toward reflective practices were both high and positive.

Findings indicate that teachers' level of reflective practices from their personal point of view was high on all dimensions except for criticism, which indicates that teachers in Jordanian schools are more inclined toward using learner-centered learning strategies, strive to create a reflective teaching environment and self-evaluation, take appropriate decisions when solving classroom-related problems, and are persistent in self-development; however, they do not easily accept criticism from students or peers.

The high levels of reflective practices in in-service teachers could be due to the various and continuous updates implemented into the teaching system in Jordan as well as the various decisions taken to improve teacher training in Jordan since the beginning of the 21st century. This is most likely due to strong Jordanian interest in developing the education sector through teacher preparation programs, whether at public or private schools across the Kingdom. Furthermore, educational institutions have been encouraging teachers to attend workshops and seminars on different and contemporary student-centered learning and teaching strategies as well as allowing them the opportunity to practice these strategies, which reflects positively on their classroom practices and their learners' academic performance. Furthermore, various educational institutions have been offering financial and moral incentives and prizes for outstanding teachers, including the Queen Rania Teaching Award, which has had quite a positive impact on teachers' classroom practices and has deepened their analytical, critical, and reflective skills and experiences.

Moreover, this century is characterized by its ease and speed of communication and experience exchange through the internet, which allows teachers to expand their resources and keep up with updates in their field.

The findings of this study have been consistent with various previous studies in the field, including Tok& Dolapçioğlu, (2013); Shaheen, (2012), as well as Rayan (2014), who collectively assert that in-service teachers possess a high level of reflective practices.

On the other hand, these findings were inconsistent with those of Ostaz (2011) which indicated that in-service teachers had a reflective practices level far below acceptable. This is supported by Tabassum & Malik (2014) which also indicated that teachers lack sufficient knowledge on reflective practices in the classroom.

Furthermore, the findings show that teachers face a few issues in a number of reflective practices, such as accepting criticism (as stated earlier), as they do not usually ask their peers to evaluate their teaching methods nor allow students to express their opinions openly regarding their teaching methods. Thus, teachers are not receiving a sufficient amount of feedback from their peers and students despite the importance of such practices in improving the learning and teaching process. This could be due to teachers' fear of being judged by students or fellow teachers and staff members, especially if their classroom performance is below acceptable (which could negatively impact their chances of a promotion or renewal of contract for upcoming years, as well as their general sense of self-confidence). Findings further indicated that a large portion of teachers do not keep a journal to document their performance and points of strength and weakness. This could be attributed to teachers usually being overworked, especially in regards to the size of the curriculum due for completion in addition to their lengthy teaching hours, which could prevent them from finding the time to perform reflective practices such as lesson exchange visits or recording their progress and notes on a journal.

In addition to the aforementioned, the findings also concluded that there were no statistically significant differences based on gender, number of experience years, or number of seminars attended during in-service years on teachers' professional practices. Previous studies, however, provide conflicting results. For instance, Rayan (2013) asserts that there was a slight significance in the level of reflective practices in favor of teachers with less experience. However, a large number of studies assert that teachers with more experience are more likely to use reflective practices in teaching, while teachers with little or no experience do not give the matter enough thought (Efe, 2009; Ostaz, 2011). Add to that, a number of studies indicate that novice teachers are more likely to integrate technology in their teaching practices (van der Schaaf, Krull & Okas, 2014) and follow direct and clear steps in the classroom, while experienced teachers are more likely to use reflective practices and work on improving and developing their learners' skills (Efe, 2009).

A study conducted by (Galvez-Martin, 2003) demonstrates that the more experienced a teacher is, the more inclined toward reflective practices he or she becomes, even if they have never received training on reflective practices during their pre-service years; furthermore, such teachers are usually more open and effective compared to their less experienced peers.

This study has shown that teachers' attitudes toward professional self-development were high and positively correlated to teacher reflective practices, and it is quite assertive that teachers' attitudes direct their behaviors toward reflecting on classroom practices and improving performance. It is possible that teachers who possess more positive attitudes toward teaching have gained knowledge through the internet which is easily accessible as well as due to the changes and transformations currently occurring in teachers' roles as a natural response to the challenges posed by the 21st century (clearly visible in the information technology revolution currently underway, in addition to the vast amount of information now made available).

Recommendations

The following is a list of recommendations that, if implemented would contribute positively to develop and reinforce reflective practices among teachers:

- Teacher Preparation Programs could be redesigned to include courses which enable novice teachers to understand the importance of reflective practices for career improvement, which ought to be followed by further reflective practices and reflective journalism by students as a requirement for passing such courses.
- Prompt in-service teachers to record their reflections and request help from peers, in addition to allowing teachers the opportunity to share ideas and exchange visits.
- Encourage in-service teachers to record what they attempted earlier and the meanings and conclusions derived from such attempts, in addition to future suggestions to attempt in upcoming practices.
- Encourage teachers to attend peers' classes so to have such practices grow to become a part of the school culture, as they play an essential role in improving teachers' performance and widening their horizon and knowledge of their points of weakness and strength.
- Conduct further studies to investigate reflective practices in pre- and in-service teachers and how this relates to the components of effective teaching.

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