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Education of Incarcerated Young People in Malawi: Strategic Plan versus Reality

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Abstract

Education must be accessible to all citizens, including those incarcerated in penitentiaries, to contribute to the socio-economic development of the countries. In Malawi, to enhance incarcerated people's access to quality education in correctional facilities, the Malawi Prisons Service (MPS) included education as a strategic objective in its five-year strategic plan covering the period between 2016 and 2021. This article analysed and compared this strategic education objective against reality to ascertain its implementation and relevance during the implementation period. Guided by Bunning's model of strategic planning, the study employed a qualitative content analysis research method using the 'hybrid approach'. The study mainly used data from the semi-structured interviews involving purposively selected 25 educators and officials from five young offenders' rehabilitation centres in Malawi. Findings revealed a mismatch between the contents of the strategic education objective and the actual reality. The study identified characteristics of Bunning's ritual approach since it was revealed that the strategic plan was developed to please the government and development partners. From the education objective viewpoint, the strategic plan was hardly used during the five years since the educational activities remained the same (even worse) after the implementation period. The young offenders' facilities were still stuck in the punitive philosophy, as evidenced by limited resources in the education section and the management's priority on coerced farming instead of education. It was recommended that the correctional administrations needed to prioritise the provision of quality education for school-aged offenders in correctional policies.

Keywords: Correctional Education, Rehabilitation, Correctional Policy, Strategic Plan, Juveniles.

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Introduction

Education is an indisputable device that provides unlimited opportunities to people. In Malawi, the country's constitution does not discriminate against the right to education based on anything, even incarceration, since, according to section 25(1), "all persons are entitled to education" (Government of Malaŵi, 2018, p. 16). Moreover, section 163 of the same constitution mandates the Malawi Prisons Service (MPS) to not only house and detain prison inmates but also engage them in programmes, including education that will rehabilitate them. Furthermore, Malawi as a nation is obliged to provide education to incarcerated people because the Universal Declaration of Human Rights recognises education as one of the fundamental human rights that prisoners should also enjoy (UNESCO, 2021). According to UNESCO (2021), prisoners have the right to access quality education and lifelong learning during incarceration and after release. To fully engage in the education of offenders as a vital component of the constitutionally mandated rehabilitation function, the MPS included education activities in its strategic plan covering the period between 2016 and 2021 (MPS, 2016). In this five-year strategic plan, the department identified and included six goals. Education objective was within the third goal, which was "to expand and improve offender reformation programmes". The education objective committed the MPS to increase offenders' access to education by, among many things, enrolling all incarcerated school-aged young people into primary and secondary education within correctional facilities (MPS, 2016, pp. 25-33). In 2022, the MPS had 30 facilities all over the country, of which five were young offenders centres (Kajawo & Johnson, 2023). The plan was, therefore, to open and resource schools at all correctional facilities in Malawi. Surprisingly, studies report that strategic planning does not usually translate into reality (Kayuni, 2017; Klimenko & Kalgin, 2018; Salum et al., 2017). There are usually discrepancies between the planned activities and the reality (Bunning, 1992, Kayuni, 2017).

This study was, therefore, aimed at comparing and analysing the education strategic objective of the MPS 2016-2021 Strategic Plan against the reality on the ground, a year after the expiry of the implementation period. The study attempts to assess the extent to which the strategic education objective had been fulfilled within the five years of the strategic plan's implementation period to ascertain its relevance. It also explores factors that could have hindered the implementation of this strategic education objective to identify Bunning (1992)'s strategic planning approach closely aligned to the MPS strategic planning process.

Education in Young Ohffenders' Centres

The existing literature generally makes greater attempts to justify rehabilitation, including education as a successful endeavour on prisoners' desistance, reduction to re-offending and post-incarceration schooling (e.g. Carter, 2019; Duwe & Clark, 2017; Hawley et al., 2013; Jäggi & Kliewer, 2020). Education access is considered mandatory and obligatory by law for young offenders

compared to their adult counterparts (Hawley et al., 2013; Jäggi & Kliewer, 2020). The consensus is that school-aged incarcerated young people "must receive schooling meeting the minimal standards of mandatory public education" (Jäggi & Kliewer, 2020, p. 2). This is especially because education is transformative since it equips individuals with the critical skills essential for developing their societies (Adkins, 2016). The need for education is also powerfully stipulated in international laws such as the UN standard minimum rules for the treatment of offenders (the Mandela Rules) which obliges the prison administrations to provide educational opportunities to young offenders (United Nations, 2015). The justification is that young offenders are among the thousands of prisoners worldwide that are expected to be released each year (Bachman & Schutt, 2018; Davis et al., 2014); thus they should not find it difficult to reintegrate, such as continue schooling in their communities after their release.

In agreement with international law, studies have shown that education is provided in correctional facilities worldwide. For instance, in the USA, Europe and the even United Arab Emirates, schooling for school-aged incarcerated young offenders is obligatory (Davis et al., 2014; Grant, 2017; Hawley et al., 2013; Jäggi & Kliewer, 2020). A study by the Raoul Wallenberg Institute (2015) found that young offenders were provided with formal education in many ASEAN member states such as Brunei Darussalam, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam. Studies in many African countries have also reported that young offenders are provided with formal education in many penitentiaries (e.g. Ajah & Ugwuoke, 2018; Fambasayi & Moyo, 2020; Johnson & Quan-Baffour, 2022; Makuwerere, 2020; Msoroka et al., 2018). Johnson (2022) report that education programmes are offered in many penitentiary facilities in African countries such as South Africa, Malawi, Lesotho, Ethiopia, Nigeria, Namibia, Ghana, Tanzania and Uganda. In South Africa, education is considered a constitutional right and a "foundation stone for rehabilitation" for incarcerated people (Johnson, 2022, p. 1).

In Malawi, education in penitentiaries was non-existence until the late 1990s, when it was introduced after the new constitutional order (Kajawo, 2023; Kajawo & Nyirongo, 2022; Mwakilama, 2010). To enhance the quality of correctional services, the Malawi Prisons Service included educational objectives in its first strategic plan, which was implemented from 2016 to 2021 (Kajawo, 2019; Kajawo & Nyirongo, 2022; Kajawo & Johnson, 2023). However, studies on correctional education indicate that the international laws granting similar educational rights enjoyed by the communities outside prisons to offenders do not always translate to access or provision of quality education in penitentiary facilities (Gadama et al., 2020; Hawley et al., 2013). Gadama et al. (2020) argue that even though international standards are vital, there is usually a risk of non-compliance and being ignored by duty-bearers because "they are soft laws" (p. 14). In many instances, the effort of aligning or customising the international obligation end in policy formulation or strategic planning processes without any corresponding actual implementation. For instance, studies have reported that

education was not accessible to some young offenders in some African countries, such as Tanzania, despite well-formulated policies depicting the same (Msoroka et al., 2018; Msoroka, 2019). Msoroka et al. (2018) observe that despite the availability of education policies and plans, many penitentiaries still do not provide educational services to offenders, including the young ones and "there is no room for anyone to question its implementation" (p. 48). This implies that the evaluation of offenders' educational policies and plans against their implementations is pivotal.

Strategic planning *vis-à-vis* implementation reality

Strategic planning is becoming a prominent process on public organisations' agenda because of the recent countries' rush in public management reforms, even though the field is rarely researched (Cheung & Yu, 2020; Kayuni, 2017). It is reported that during the early years of the emergence of strategic planning worldwide in the 1950s, the private sector fully embraced it compared to the public sector organisations that did not immediately see its relevance (Kayuni, 2017; Nartisa et al., 2012). However, the global public management reforms triggered the need for strategic planning in the public sector worldwide.

In Malawi, strategic planning gained prominence in the public sector in the 2000s when the government started implementing comprehensive public sector reforms (Kayuni, 2017). Before these reforms, public institutions were not obliged to engage in strategic planning, thus less than 5% of all government institutions had strategic plans (Kayuni, 2017). It was the implementation of comprehensive public sector reforms that necessitated the availability of institutional strategic plans (Kayuni, 2017). This triggered the government to publicly communicate a directive to all public sector bodies to engage and develop strategic plans (Kayuni, 2017). Despite this strong directive, not all public sector institutions immediately developed their strategic plans (Kayuni, 2017; Sikwese, 2013). Kayuni (2017) observes that many public sector organisations still operated without strategic plans 15 years after the directive. Among those organisations was the MPS (Sikwese, 2013).

In the assessment report on public sector reforms in Malawi by Sikwese (2013), it was strongly recommended that public institutions including the MPS needed to develop strategic plans. The MPS finally developed and launched its first strategic plan in 2016 (Kajawo & Nyirongo, 2022; Kajawo & Johnson, 2023; MPS, 2016). This strategic plan was aligned with the Democratic Governance Sector Strategy and the then Malawi Growth and Development Strategy II to ensure that correctional services were in line with the national development agenda (MPS, 2016). This five-year strategic plan envisioned the MPS as moving from 'prison service', which had a punitive connotation, to 'correctional service', which was to focus on offender rehabilitation (Jäggi & Kliewer, 2020; Kajawo & Johnson, 2023; Makuwerere, 2020; MPS, 2016, p. 19). The 'correctional' aspect was strongly embedded and inscribed in the new organisational strategic mission that committed the MPS to provide effective rehabilitation and community reintegration services to offenders.

In the strategic plan, the department identified and included six goals to guide the service in the achievement of its set mission and vision. Education was inscribed in the third goal "to expand and improve offender reformation programmes" (MPS, 2016, p. 25). It was, therefore, exclusively covered in the first objective that committed the MPS to increase offenders' access to education by, among many things, enrolling all incarcerated young people into primary and secondary education offered within correctional facilities (MPS, 2016). To achieve this objective, several activities were put in place such as extending education to all correctional facilities, especially those incarcerating young people which are called 'young offenders' rehabilitation centres' (YORCs). This was against the background that only 17 out of 30 prison facilities provided offenders' education programmes (Kajawo, 2019; Kajawo & Nyirongo, 2022; Kajawo & Johnson, 2023). The idea was to construct at least four classroom blocks, a library and a laboratory at each of the 30 correctional facilities over five years, and resource the centres with adequate teachers, teaching and learning equipment and materials to provide quality education equivalent to the one provided in the communities outside prisons as recommended by a number of previous studies (e.g. Gama et al., 2020; Kajawo, 2019; Kajawo & Nyirongo, 2022). Due to this huge commitment, this education strategic objective was allocated a lion's share in the implementation plan. Out of the 34.5 Billion Malawi Kwacha (47 Million US Dollars) estimated for the five-year activities of this strategic plan; 47% was allocated to the strategic education objective (Kajawo, 2019; MPS, 2016).

However, the study done by Kajawo (2019) which analysed the budget lines or financial allocations of the 17 facilities in the first two years of the implementation of this strategic plan found that the education strategic objective had not yet started being implemented as intended in the strategic plan. Moreover, many studies report that policies and strategic plans do not always translate into reality during the implementation period (Gadama et al., 2020; Kayuni, 2017). In his study involving participants from selected departments under the Office of the President and Cabinet and Ministry of Finance who have been engaged in the strategic planning process since the year 2000, Kayuni (2017) concluded that the strategic planning process lacked the influence and effective leadership, key stakeholder involvement and adequate resources to effectively enhance reforms in the Malawi public sector. It was, therefore, both academically yielding and significant to analyse the implementation of the strategic planning process in a public organisation that was initiating the process for the first time as an extension of Kayuni (2017)'s study.

Bunning's model of underlying approaches to strategic planning

This article applies the Bunning model of underlying approaches to strategic planning in the public sector in analysing the implementation of the education objective in the MPS strategic plan. Bunning's model postulates that the most serious issues related to formulating an effective strategic plan usually stem from their underlying approaches (Bunning, 1992; Favoreu et al., 2015; Johnsen,

2015; Johanson, 2019; Kayuni, 2017; Klimenko & Kalgin, 2018). Bunning, therefore, identified three different approaches in public organisations' strategic planning. The first is the 'ritual approach', which mainly aims at getting funding or complying with government requirements. The second one is the 'technical decision-making approach' which aims to resolve "what should be done" but leaves out key external stakeholders who are likely to disrupt the plan later (Bunning, 1992, p.56). The third approach is the 'consensus-seeking process' in which a compromise is reached among the key stakeholders to make the plan not objectionable at the expense of addressing actual societal problems (Bunning, 1992; Kayuni, 2017). Nevertheless, Bunning recommended 'a learning approach' as the ideal strategic planning underlying approach since the whole strategic planning process can be seen as creating learning opportunities for the stakeholders to interact synergistically for their concurrent understanding of the organisation (Bunning, 1992).

The analysis of the strategic education objective in this study is directly related to the 'ritual approach'. Many scholars concur that the strategic planning process in the public sector in many countries is often an activity merely meant to please some people, such as the central government and development partners (Al-Mawdieh, 2020; Johanson, 2019; Kayuni, 2017). Johanson (2019) argues that this is the worst planning approach since strategic planning is reduced to a ritual, a tool developed to meet government or funding bodies' demands or conform to the requirements. Strategic planning becomes a mere show of organisational evolution and maturity (Al-Mawdieh, 2020). The strategic planning effort ends at producing a 'strategic plan' document without its corresponding implementation. Therefore, completing the strategic plan document would mark the completion of the strategic planning process since employees' attention is drawn back to the organisation's traditional functions, which might not even be included in the plan. The result is usually the strategic document gathering dust on the shelf (Bunning, 1992; Johanson, 2019; Kayuni, 2017). Coincidentally, some activities might be implemented because they are the traditional activities which were going to be carried out anyway even without the presence of the strategic plan.

Methodology and Methods

This paper is based on qualitative research data from a study ethically approved by the MPS authorities and the University of South Africa (UNISA) College of Education Ethics Review Committee conducted at five young offenders' centres in Malawi. The study employed qualitative content analysis research method using the 'hybrid approach' (Morgan & Hoffman, 2018, p. 258) to analyse the educators' perceptions on the education strategic objective in the MPS 2016-2021 Strategic Plan. Schreier (2014) defines qualitative content analysis as a descriptive and interpretative method used to systematically describe the meaning of data by assigning sequential parts of the data to the categories of a coding frame. The choice of this approach was made to utilise the "systematic

set of procedures" available in this approach "for the rigorous analysis, examination" and verification of the targeted strategic plan contents against reality (Cohen et al., 2018, p. 674).

The study sought to answer two questions: To what extent was the strategic education objective fulfilled within the five years of the MPS strategic planning process? What were the factors hindering the successful implementation of the education strategic objective? In responding to these questions, this study collected data through semi-structured interviews from the purposely selected 20 educators at four young offenders' facilities with schools and five officials from one facility without an education programme. The educators were involved because they are among the active participants or consumers in the education system (Demirpolat, 2021). Their involvement "can be highly important in understanding the educational process and conducting more consistent policy analyses in education" (Demirpolat, 2021, p. 361). The interviews, therefore, assisted in gathering rich and useful information from these 25 respondents' lived experiences, knowledge and views regarding the education of young offenders against the strategic plan content (Denzin & Lincoln, 2018). Complimentary data was generated from the researcher's observations conducted by the first author.

Using a hybrid qualitative content analysis approach, the researcher combined deductive and inductive analytical systems in data analysis (Morgan & Hoffman, 2018). Additionally, the analysis was guided by the stages and tenets outlined by Cohen et al. (2018). The researchers began by "reading between the lines" of the transcripts and the targeted strategic plan document to get familiar with the texts to explore both manifest and underlying meanings from the educators' and officials' interview transcripts and the researcher's field notes (Swann, 2021, p. 26). The strategic plan content was analysed and compared to the educators' perceptions, eventually triangulated with the researcher's observations to maximise trustworthiness. Codes and themes were identified in the MS text editor, which followed the running of a macro *(ExtractCommentsToNewDoc)* to extract the coded data from the transcripts, which enabled the organisation of themes and sub-themes. The hybrid approach of qualitative content analysis assisted in organising the bulky data from 25 educators' and officials' interview transcripts into the already existing themes established from the literature and even creating emerging ones from the data set (Neuendorf, 2017). It also assisted in analysing the strategic planning process using Bunning's model.

Findings

The findings are thematically presented based on the respondents' responses to the research questions. Two themes were identified: there was a mismatch between the strategy's educational plans and the reality, and there were several factors that contributed to the mismatch. The findings are presented under these two separate thematic headings.

The mismatch between the strategy's educational plans and the reality

This study found a mismatch between the educational activities included in the MPS strategic plan and the output (the reality) in the five young offenders' centres. The following subheadings present the analysis of the implementation of the education objective based on the included activities.

(a) Expansion of education availability and access to all facilities in Malawi

In the MPS 2016-2021 strategic plan, the first four activities were about expanding inmates' access to education at 30 facilities, especially at five centres incarcerating young offenders. The plan was to enrol all young offenders into basic education, increase enrollment of inmates at the remaining adult facilities, and extend the right and access to education to female inmates. In this study, the observations showed that the MPS did not put any new effort into expanding educational access to all 30 prison facilities in the country. According to the educators, there were still 17 facilities out of 30 that were offering education programmes to inmates. Out of the 17 facilities, four were young offenders' centres, implying that one young offenders' centre (Facility 5) did not have any education programme. According to the officials at Facility 5, the facility was a farm;

> *Here we don't offer education because this is a farm. Inmates are always working on the farm. Even if they are schooling besides farming, it would not be effective because they would be struggling to keep up with school since they would always be tired in the maize fields (F5/PO/25).*

The Facility 5 officials explained that the centre used to offer educational programmes in the past (until 2019). However, they had to close the school to concentrate on farming "*...we have 25 hectares of land for farming. We do all our agricultural activities manually using these inmates as labour. When they were engaged in school, the farming activities were suffering. We just closed the school.*" Another official agreed that education would have hindered the facility's farming goals:

> *Here we don't offer education because this is a farm. If we had sustained school here, farming would have suffered. We cannot produce anything if we have a school here. This is because ...almost all inmates would opt for school; hence there might not be anyone to go and work on the farm, since farming is painful, and is even more painful here since we have huge land requiring our attention, of which the source of labour is these inmates. This is why the school had to be closed...We realised that it affected our farming* (F5/PO/24).

Nevertheless, all five officials at this facility acknowledged that there was still a huge demand for education by the incarcerated young people. According to one official, *"Many of them want education and the majority also wants to acquire technical skills such as carpentry, plumbing and*

brick-laying even though they are not accessible here". Instead, all young offenders at this centre were forced to work in the prison farm field.

Moreover, the educators at the remaining four facilities where education was accessible also indicated that many young offenders were still not enrolled in correctional education even though it was accessible. According to educators at two of the four facilities (facilities 1 and 2), the main hindrance was also the compulsory farming activities:

> *Many are not in school because they feel like they don't have time for school. Some would make an effort to register but fail to attend because there is no time for education here since they are engaged in farming. When they come back, they are tired to attend classes* (F2/EDU/09).

Even at the two facilities which reported that there were no farming activities, it was noted that the majority of inmates were still not enrolled in education programmes. Overall, the researcher's field notes from the facilities' records showed that only 24% of the inmate population at the five young offenders' facilities (N=764) were schooling. This finding just shows that the majority of young offenders (76%) were still not in school in a population with a mean age of 19.8 years and mode age of 18 years (range= 16-26) that visibly needed education for their future (Jäggi & Kliewer, 2020; Kajawo, 2022; Kajawo & Johnson, 2023). This was a population similar to the one presented by Kızıltaş (2023) of disadvantaged bilingual students as representing sad portraits of crime and academic failure in rural areas of Turkey. In this study, the educators cited the negativity of the environment as discouraging young people from enrolling.

> *For somebody to study, he needs a conducive environment. Free from noise, and access to nutritious food… but here they receive food during class hours. Hence some students refuse to attend classes to avoid being missed out on food. They even fail to concentrate on their studies because of noise* (F3/EDU/13).

This result shows that the plan to expand education programmes' availability and access to all inmates in the MPS was not fulfilled during the five years of this strategic planning

(b) Ensure the adequacy of qualified educators

The fifth activity in the strategic plan was to reduce the inadequacy of qualified teachers in prison schools by making arrangements with the Ministry of Education to provide teachers for prison schools and also deploy qualified prison officers as teachers. According to the educators, MPS was far behind in achieving this objective since the four facilities still had shortages of educators. It was noted that the facilities had five to 12 teachers for all 12 classes, respectively. Worse still, the majority of

these already inadequate educators were not qualified to teach in those grades because primary teachers were teaching secondary school classes:

> *Teachers teaching in secondary schools here are primary school-qualified teachers, not secondary school teachers. This means there is a need to upgrade them to properly teach at the secondary school levels* (F1/EDU/03).

Facilities two and four were even using unqualified inmates to work as educators. According to a 24-year-old volunteer teacher at Facility Two, the involvement of unqualified inmates as teachers was counter-productive;

> *Involving inmates like me to teach here is not productive…I am not that educated to teach others …students are obviously deprived of the expertise and experiences that a qualified teacher could have provided them. This is because trained teachers know teaching methodologies apart from subject content. But people like me only teach out experience and because I learned those things from my own education* (F2/EDU/06).

According to this volunteer teacher, the inadequacy of teaching staff partly contributed to the unavailability of secondary school classes at facility two since only primary education was accessible.

> *The non-availability of secondary school classes sometimes could be because of the inadequacy of teachers here. Even if they open secondary school classes, the chances are that there might not be teachers to teach. Imagine that even amongst us, the inmate teachers…many teachers do not have qualifications …even MSCE, but they are teaching just because they reached secondary school level* (F2/EDU/06).

This young man and others recommended deploying qualified teachers to improve the education of the incarcerated young people in Malawi.

> *They should bring qualified teachers here. They need to deploy those teachers who were trained in education colleges to teach these inmates or even officers who are qualified teachers* (F2/EDU/06).

(c) Construction of classroom blocks, laboratory and library rooms at each facility

The strategic plan also included the construction of at least four classroom blocks, one laboratory and one library at each of the 30 prison schools within five years. Educators in this study observed that this activity was also not accomplished because no single additional classroom block, laboratory or library room were built at their respective five young offenders' facilities within the five years. Three facilities in this study had only four classrooms accommodating 12 classes.

> *We only have four classrooms, but we are talking about having standard one up to form four. To accommodate them, we combine classes, for example, forms 1 and 2 as one class and forms 3 and 4 as another, hence compromising quality* (F1/EDU/04).

> *In the classroom, most of the classrooms do not have desks. So they sit on the floor even secondary school students. And even the toilets at this school section are not that good. So some inmates just come here to just breathe fresh air but are not motivated to put their concentration on their education* (F3/EDU/11*).*

Worst still, facility two did not have any proper school structures. Students were still learning in tents since the opening of the school at the facility in 2013.

The findings presented in this section show that almost all planned activities included in the MPS strategic plan were hardly fulfilled or implemented. These findings concur with studies in many African countries which found that well-planned rehabilitation activities usually end at the planning level or in policy papers (Ismaila, 2020; Msoroka et al., 2018; Msoroka, 2019). In the Bunning model, these findings align with the ritual approach (Bunning, 1992; Kayuni, 2017). Relating the Bunning model to the education objective alone, the strategic planning process ended when the strategic plan document was produced (Al-Mawdieh, 2020; Johanson, 2019; Kayuni, 2017). Eventually, the copies were put on shelves, thus never used to guide annual budgeting and educational decision-making.

Factors Contributing to the Mismatch

This theme focused on exploring factors contributing to the mismatch between the strategically planned activities and the reality after the expiry of the implementation period. From the analysis of educators' perceptions, five sub-themes emerged as factors contributing to the mismatch.

(a) Lack of educators' knowledge of the strategic plan and its contents.

Employees as a key stakeholder group need to have the knowledge and be involved in the whole strategic planning process to enhance their commitment (Alfayez, 2020; Salum et al., 2017). However, this study found that 88% of educators and officials (n=25) were ignorant of the existence of the strategic plan: *"This is even my first time to hear about this",* responded one educator. Another educator concurred with his colleague, *"No. I don't know about that. I don't think we use any strategic plan."* The ignorance of the strategic plan's existence was contributed by the lack of involvement of subordinate and junior staff members in the strategic planning process. Educators complained that only the officers-in-charge (OCs) were oriented and sensitised regarding the strategic plan in 2016. They also received one copy each for their stations. Educators claimed that the OCs did not disseminate the content to the rest of the staff members since the majority of the OCs also did not understand the seemingly new strategic planning phenomenon. The three educators (12%) who

claimed to have knowledge of the strategic plan reported to have accessed it through their means; two of them downloaded it from the department's website which had just been re-launched in 2020. This finding concurs with Kayuni (2017) who observes that employees' ignorance of the contents of the strategic plan was among the crucial factors negatively affecting the successful implementation of strategic plans in the public sector in Malawi. The non-awareness of the contents made officers stick to their traditional routine or ad-hoc activities not included in the strategic plan as suggested in Bunning's (1992) model. Alfayez (2020) and Salum et al. (2017) also observe the exclusion of some stakeholders; in this case, educators can limit the anticipated benefits and relevance of the strategy.

(b) MPS is still stuck in the punishment philosophy.

Many educators perceived MPS as still stuck in the punitive philosophy even though it claimed to be going towards correctional service in its strategic vision. According to them, rehabilitation philosophy which embraces mandatory education of school-aged young offenders is just on paper.

> *On the ground, I can say we are punishment oriented, while on paper, we are rehabilitation oriented. If you compare the prison of today and of the past, there is not much difference. In the past, prison farms were used as punishment centres as they implemented the court's penalty of imprisonment with hard labour on offenders. That kind of treatment is still here. Inmates are still used as labour. What I see is the change of name from 'prison farm' to 'young offenders' rehabilitation centre', but those punitive farming activities are still forced on the young ones at the expense of their education* (F1/EDU/03).

The general perception of the educators was that education as a rehabilitation activity was just exhibited in the papers to shield some punitive traits that still existed in the penitentiaries in Malawi. Another educator concurred that there was no effort toward implementing the strategic plan's content. The leadership lacked a mindset change to move out of the status quo.

> *There is a need for a mindset change in leadership. The authorities put in place a strategic plan with good content but did not use it... With the content of the strategic plan, prison education should have improved by now. But what are we seeing? The same structures existed long ago, and even the level of resources is dwindling compared to the past* (F4/EDU/20).

(c) A conflict between education and farming policies.

The findings of this study showed conflicting interests between education and farming policies. According to one educator at facility one, *"Despite this facility being called a rehabilitation*

centre, what l have observed is that the management values much on farming more than rehabilitation activities." Another educator observed that the imposition of farming targets and not targets related to inmates' education to officers-in-charge (OCs) was a reason enough to point out where the prison authorities' interests lay.

> *We are talking about a young offenders' rehabilitation centre here; hence, education issues needed to be given 100% full support. But you will find that every year the department is giving farming targets to the OCs. So it means that the department is now turning this station from being a rehabilitation centre into a farming centre. Farming pushes the OCs to work hard to impress their bosses, hence prioritising the use of incarcerated young ones as labour for farming activities rather than educating them to meet their targets* (F1/EDU/04).

Many educators viewed that the farming policy was considered supreme because of the immediate outputs in terms of harvests. Thus, the department had to make the hard decision of discontinuing the provision of education at Facility Five for full concentration on farming.

> *It is about the department policies, but it is impossible to close the farm for the school because the prison authorities rely on this farm for the production of food. So I don't think it can be an easy decision to stop farming for the schooling of these young offenders. Maybe if they bring adult inmates to be engaged in farming and let the young ones go and attend school; that would work* (F5/PO/25).

(d) Inadequacy of resources

Educators observed that the inadequacy of resources throughout the five years of the strategic plan implementation also contributed to the mismatch. According to one of the educators at facility one, *"comparing to the contents of the strategic plan and the resources that we have, it was impossible for them to be fulfilled."* According to another educator at Facility Four;

> *We lack resources; we depend on well-wishers. As you can see, we only have four classrooms but offer lessons in all classes from Standard 1 to Form 4. As a remedy, we combine classes which are not ideal. But we do combine classes also because of the shortage of teachers. We only have eight teachers against 12 classes, which is not ideal. We don't have a laboratory, and in the library, we only have outdated books which are not in our syllabus* (F4/EDU/16).

The educators observed that the strategic education objective would have been accomplished if the allocation of educational resources was mandatory in the facilities' budgets.

(e) Lack of external stakeholders' support

Apart from the government's annual budgetary allocations and MPS revenues, the strategic plan was projected to source funds and other resources from external stakeholders such as the Ministry of Education and development partners. It was observed that the education section hardly received resources from development partners. Moreover, the Ministry of Education never deployed teachers to prison schools, as observed by one educator.

Even though the strategic plan mentioned the plan to engage the Ministry of Education in providing qualified teachers to all schools in prisons, there has been nothing like that. The schools are still surviving on the mercy of the interested prison officers and volunteer inmates who are teaching, of which many are not qualified teachers. And, we don't have good cooperation and working relationships with the surrounding schools to benefit resource-wise (F1/EDU/02)

Salum et al. (2017) argue that stakeholders' support is essential in the strategic plan implementation process. In this study, the lack of the Ministry of Education's support as an external stakeholder affected the implementation of the educational objective of the MPS strategic plan since the unavailability of qualified teachers, in addition to many other resources, hindered the provision of quality education.

Discussion and Conclusions

From the findings of this study, it was evident that there was a mismatch between the content of the strategic education objective of the MPS 2016-2021 Strategic Plan and the actual reality in the five facilities after the expiry of the implementation period. Relating to Bunning's model of strategic planning (e.g. Bunning, 1992; Johanson, 2019; Kayuni, 2017), it was generally found that the Malawi Prisons Service's strategic planning exhibited characteristics of a ritual approach as far as the strategic educational objective was concerned. Firstly, it was revealed that the whole strategic planning process was merely done to please the international funding authorities. Evidently, the strategic plan was hardly used in the budgeting process of the education objective since the educators reported that the facilities did not allocate funds for the education function or the schools in their respective facilities. The schools were surviving at the mercy of the local well-wishers. In the words of Bunning (1992), the strategic planning process was just "a ritual to be performed essentially to meet the expectation or demands of …funding bodies" (p. 55). Therefore, the aim was the existence of the document, not its achievement or fulfilment of the planned activities.

Secondly, the whole strategic planning process was just a show of maturity and strategic organisational growth on the part of the MPS, as argued by Al-Mawdieh (2020) and Johanson (2019). Coming from the backdrop that the 2016-2021 strategic plan was the first to see the light of day in the MPS after several failed attempts, the findings suggest that the whole process was done to adhere to

the government directive (Kayuni, 2017). It aimed to enable the MPS to be labelled among the public institutions with their strategic plans in a country where many public sector organisations had not yet developed their plans (Kayuni, 2017; Sikwese, 2013). 47% of the strategic budget projection was allocated to the education objective to improve offenders' education for their rehabilitation, as suggested in many studies (e.g. Duwe & Clark, 2017; Jäggi & Kliewer, 2020). However, less than 1% was allocated and spent on educational activities. Instead of making strides, the education provision was retrogressed, evidenced by resource inadequacy and the discontinued provision of education at one young offenders' centre.

Finally, ritualism in this strategic planning process was evident from the revelation that 88% of the educators did not even know that the department had a strategic plan. In a penitentiary setting, the educators are amongst the facility personnel who are considered enlightened compared to the security staff (Kajawo, 2022). If the educators were ignorant of the existence of the strategic plan, it could be worse with the security staff. True to Bunning's ritual approach, the strategic plan was put on office shelves, quietly gathering dust. In the study, it was revealed that the authorities prioritised making young offenders work on prison farms as labourers to fulfil facilities' harvest targets. This decision even resulted in the discontinued provision of offenders' education services at facility five since education was perceived as disrupting farming activities. These findings show that the strategic plan did not guide the authorities' daily activities at the five facilities. These findings concur with Kayuni (2017) that Malawi's public sector strategic planning process lacked the influence and effective leadership to enhance reforms effectively.

Policy Implications

Since the present study revealed a mismatch between educational planning and reality, correctional administrations need to prioritise the provision of quality education in correctional policies. The priority ought to be the school-aged offenders who need an education "meeting the minimal standards of mandatory public education" to enhance their desistance and post-incarceration schooling (Carter, 2019; Gary, 2014; Hawley et al., 2013; Jäggi & Kliewer, 2020). In strategic planning, officers in charge and educators need to be fully involved in the whole process. The involvement should not just be during the launch of the strategic plan document. According to Bunning's 'learning approach', the key stakeholders' full involvement enhances their convergent understanding for successful implementation (Bunning, 1992, p.57). Hyman (1999) argues that organisational plans, policies and procedures can be excellent tools if the staff members know them.

Furthermore, there is a need to ensure harmony and unity in the implementation of various organisational policies. This study revealed a clash between the educational and farming policies in the MPS, which resulted in the young offenders' right to education being compromised. Undeniably,

farming is as important as prisoners' education because it improves the organisation's food situation. However, forcing young people to work on the farm at the expense of their education is barbaric and tantamount to slavery. There is a need for deliberate policy that protects school-aged young offenders from being incarcerated at farming prisons. They need to be lodged at rehabilitation facilities where they can access education to enhance their rehabilitation and successful community re-entry.

Conflict of interest

No potential conflict of interest was declared by the authors.

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Credit Author Statement

Author 1: Conceptualisation, Data collection, Analysis, Writing - Original draft preparation

Author 2: Data analysis, Methodology, Writing - Review & Editing

Ethical Statement

We act in accordance with scientific ethical principles and rules from all stages of the study, including preparation, data collection, analysis, and presentation of information; we have cited all data and information not obtained within the scope of this study and we have included these sources in the bibliography; we declare that we have not made any changes in the data used and that we comply with ethical duties and responsibilities by accepting all the terms and conditions of the Committee on Publication Ethics (COPE). At any time, we declare that we consent to all moral and legal consequences that may arise in the event that a situation contrary to this statement we have made regarding the study is detected.

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Predictive Effect of Meaning of Life on Psychological Well-Being and Happiness Among University Students

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Abstract

In this study, it is aimed to examine the predictive effect of the meaning in life on psychological well-being and happiness in university students. In the study, it was also investigated whether there was a significant difference between the meaning in life, psychological well-being and happiness scores in terms of gender. The study population of the research consists of students studying at Hatay Mustafa Kemal University Faculty of Education in the fall semester of the 2021-2022 academic year. The study group consisted of a total of 323 students, 236 (73.1%) girls and 87 (26.9%) boys, aged between 20 and 26 ($\bar{x}$=21.62), selected with the convenience sampling method, one of the non-random sampling methods. In the study personal information form, Short form of Oxford Happiness Questionnaire, Psychological Well-Being Scale and Meaning in Life Questionnaire were used as data collection tools. According to the findings obtained from the study, the meaning in life predicted students' psychological well-being at a significant level; it was seen that the meaning in life explained about 30% of the total variance in students' psychological well-being scores. In addition, the meaning in life predicted the happiness level of students at a significant level; it was seen that the meaning in life explained about 23% of the total variance in the happiness scores of the students in a meaningful way. Finally, it was found that there was no significant difference between the meaning in life, happiness and psychological well-being scores of the students according to their gender.

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Introduction

Psychology research until the 1970s had focused more on psychopathology or maladaptive behaviors, while in the 1970s, psychology started to make its way into the field of positive psychology, which is an approach that seeks to explain the positive characteristics of individuals, rather than concentrating on psychopathology-oriented studies. Positive psychology prioritizes that individuals should be strong, adaptable, and have positive psychological characteristics, and suggests that humans, just like seeds, green, bear fruits and reveals their potential when they find suitable conditions (Eryılmaz, 2014). Rather than focusing on problems and negativity in life, positive psychology deals with many concepts that help improve individuals and societies, such as happiness, well-being, determination, psychological resilience, and flow. Positive psychology interventions aim to distance psychology from the in-depth study of psychopathology and explore what makes people happier (Hefferon and Boniwell, 2014). To that end, positive psychology studies many different structural issues in individuals and seeks to examine their strong points instead of negative aspects.

It is notable that one of the topics often studied in research in the field of positive psychology is psychological well-being, which is considered as a dimension of the concept of well-being. Etymologically, it can be associated with concepts such as 'self-actualization, maturity or full functionality' (Manzano-García and Ayala, 2017). The concept of psychological well-being emphasizes on maximizing the existing capacities of individuals and achieving full functionality (Ryff and Singer, 2008). In other words, this concept includes positive self-perception, self-awareness on one's strengths and weaknesses in a realistic way, a healthy autonomy and finding meaning in life (Ryff and Keyes, 1995). Another definition proposed by Huppert (2009) considers psychological well-being as feeling good about oneself and showing an effective functionality. In this context, psychological well-being entails individuals to find meaning in their life and to apply it into their subjective positive experiences.

Keyes et al. (2002) defined psychological well-being as engagement with the existential challenges in life (such as pursuing meaningful goals, personal growth, and building quality relations with others). In this regard, Ryff (1989b) stated that psychological well-being should be examined in 6 sub-dimensions as positive relations with others, autonomy, self-acceptance, personal growth, purpose in life and environmental mastery. Differently from other theories on psychological well-being, Diener et al. (2010) argued that psychological well-being should be assessed from a socio-psychological perspective including components such as having supportive and rewarding relationships, contributing to the happiness of others, and being respected by others. The relevant literature on psychological well-being presents many studies supporting this view. Psychological well-being is positively linked to self-esteem (Schimmack and Diener, 2003, Gülyüksel Akdağ and Cihangir-Çankaya, 2016) self-knowledge (Demirci and Şar, 2017), social support and optimism

(Ferguson and Goodwin, 2010), social skills (Segrin and Taylor, 2007), mindful awareness (Deniz et al., 2017; Zümbül, 2019), benevolence and conformity (Telef et al., 2013) and life satisfaction (Kermen et al., 2016). It is clear that the concept of psychological well-being can be studied based on numerous variables in different areas.

The concept of happiness, on the other hand, has been, historically, one of the key research subjects. Modern psychology researchers also present wide range of opinions, statements and suggestions about happiness based on the work of ancient philosophers on happiness. To achieve psychological well-being, people have been constantly striving to find, understand happiness and to experience it. Happiness has been defined by many philosophers as the most important motivation behind human behaviors and the ultimate destination. People give various opinions about how to achieve happiness in life. However, although words such as joy, peace, excitement, and satisfaction are used to define happiness, these words fail to fully represent the concept of happiness (Marar, 2004). Happiness is also described as one's feeling confident and other positive emotions more intensely such as joy and hope and feel more positive emotions such as hope; and also, one's feeling negative emotions such as fear, anxiety (Baltacı, 2019), hopelessness, sadness, anger and hatred less intensely. Moreover, happiness refers to the achievement of a high level of satisfaction in areas that directly affect one's life, such as work, marriage, and health (Eryılmaz, 2011). These being said, it seems that happiness is not a concept with a single-function or only one-way effect; rather, it influences many areas in life and different concepts.

Happiness causes an individual to feel good as well as positively affects those around that individual, thus providing multiple benefits. Individuals with a high level of happiness, also enjoy a high level of motivation, and this leads to success. Brülde (2007) reported that happiness can be addressed through four types of classifications based on cognitive, hedonistic, mood and affective views. Among them, cognitive views argue that happiness is a mental activity through which individuals show a positive attitude to life. Işık (2013) studied happiness under the concept of hedonism and defined it as the satisfaction level that manifests itself in individuals in a balanced way, replacing unpleasant feelings. It is stated that happy individuals experience and react to events and circumstances in more positive ways (Lyubomirsky, 2001). Myers et al. (1995), on the other hand, associated happiness with three concepts as the relative presence of positive affect, absence of negative affect, and satisfaction with life. Likewise, Diener et al. (2000) defined happiness as subjective well-being, and reported that happy people have a positive feeling, experience many joys, are satisfied with their life, have a high life energy, and engage in many activities. In summary, happiness is a concept intertwined with psychological well-being in literature. It can also be defined as a positive state of emotion, which includes the concepts of emotionally positive and cognitively life satisfaction.

The concept of the meaning of life is also significant in positive psychology research, considering its relationship with happiness. The meaning of life is a concept discussed by philosophers, theologians and scientists and artists to date. For this reason, it seems that the definitions of and views on the meaning of life are distinctive (Baş and Hamarta, 2015). Today, this concept is being studied within the field of positive psychology (Akın and Taş, 2015). Frankl has been a fundamental source of reference for research on the concept of the meaning of life. Frankl attributed the ability of an individual to survive under very difficult conditions to this concept and emphasized the human search for meaning as the key prerequisite for psychological health (Frankl, 2013). Frankl (2013) argued that people can discover the meaning of life in three different ways. These are: 1. by creating a work or doing a deed, 2. by experiencing something or encountering someone (love) and 3. by taking an attitude toward unavoidable suffering. Frankl (2013) highlighted that the meaning of life varies and that it can even change from person to person, from day to day, from hour to hour; thus, he argued that it is necessary to focus more on the subjective meaning of life at a certain moment. The search for meaning is a fundamental motivation in an individual's life, and an individual can find the meaning of life only through his/her own efforts. A person achieves satisfaction only when s/he reaches the meaning of his/her own life (Frankl, 2013).

The concepts of the meaning of life, happiness and psychological well-being are the subject of many studies that focus on positive and negative psychological aspects. Another variable studied in this regard is the variable of gender. There are different findings on whether the meaning of life, happiness and psychological well-being vary significantly by gender. Although there are studies that report the variable of gender varies significantly by happiness (Bal and Gülcan, 2014; Ünlü, 2019), certain research (Asıcı et al., 2015; Koydemir et al., 2015; Yang, 2008) indicated no significant difference. Similarly, some studies (Demirbaş et al., 2015; Siwek et al., 2017) concluded that gender yields significantly different results on the meaning of life. Furthermore, some findings (Baş and Hamarta, 2015; Brassai et al., 2011; Canatan et al., 2015; Cömert et al., 2016; Yüksel, 2012) reported no significant difference in regard to the meaning of life. There are also various research findings (Anlı, 2011; Cooper et al., 1995; Nilsson et al., 2010; Karabeyeser, 2013; Ryff, 1989b; Ryff and Keyes, 1995) on whether the concept of psychological well-being significantly varies by gender. The literature review on the relationship between the meaning of life and happiness (Bailey and Fernando., 2012; Braden et al., 2015; Cömert et al., 2016; Datu and Mateo, 2015; Doğan, Sapmaz, Tel, Sapmaz and Temizel, 2012; Dursun, 2012; Feldman and Snyder, 2005; Prager, 2009; Seyrek and Ersanlı, 2017; Steger and Kashdan., 2007; Steger et al., 2009; Ünlü, 2019; Wilchek-Aviad, 2015; Yıkılmaz and Demir Güdül., 2015) presents findings that there are significant relationships at different levels between these two. There are studies in the literature that yielded a significant relationship between the meaning of life and psychological well-being (Demirci and Şar, 2017; García-Alandete, 2014; Girgin, 2018; Göçen, 2019; Ryff, 1989b; Zika and Chamberlain, 1992).

The literature review shows that studies performed in Turkey and other countries on components such as psychological well-being, happiness, and the meaning of life together are limited. Since the individual is prepared to live at the professional and personal level during university, the meaning of life and psychological well-being processes are important in this period. Because the individual's level of well-being and understanding of life will help him to be welling in the coming years. Considering the importance of the concepts of happiness and psychological well-being in psychological health, it appears that scholarly attention to the relationship of these concepts with the meaning of life will help filling an important gap in the literature. That is, the research subject is original and distinctive. The main purpose of this study is to examine the predictive effect of the meaning of life on happiness and psychological well-being among university students. To that end, it first investigates the relationship between the meaning of life, and happiness and psychological well-being. Then, it probes into the predictive effect of the meaning of life on happiness and psychological well-being, respectively. It lastly determines whether there is a significant difference between the scores on the meaning of life, psychological well-being, and happiness by gender.

Methodology

Research Model

Based on the scores of the university students on the sub-scales of the Oxford Happiness Scale, Psychological Well-Being Scale and Meaning of Life Scale, this study examines the relationship between the meaning of life, happiness, and psychological well-being, and then explores differences between happiness, psychological well-being and happiness by the variable of gender. Thus, it draws on descriptive method.

Research Group

To select the sample for this research, this study benefits from convenience sampling, which is one of the non-random sampling methods. Consequently, this study is performed with a total of 323 students, including 236 (73.1%) female students and 87 (26.9%) male students, studying at different departments of the university at the undergraduate level. The age of the students ranged from 20 to 26 ($\bar{x}$=21.62). 130 students (40.2%) were freshman-level students; 68 (21.1%) were sophomore; 70 (21.7%) were junior and 55 (17%) were senior.

Data Collection Tools

Oxford Happiness Scale-Short Form

The Oxford Happiness Scale Short Form (OHS-SF), proposed by Hills and Argyle (2002) to evaluate the happiness level of individuals, is an 8-item scale with a 5-point Likert type design. The minimum score on the scale is 8 points whereas the maximum score is 40. High scores indicate a high level of happiness among individuals. The scale was adapted into Turkish by Doğan et al. (2011). The

factor structure of the scale is very similar to the single-factor structure of the original scale. The Turkish version of the scale consists of 7 items, and the minimum score on the scale is 7 points whereas the maximum score is 35 points. The internal consistency coefficient of the scale is .74; the test-retest reliability coefficient is .85. This study calculated its internal consistency coefficient as .77.

Psychological Well-Being Scale

The Psychological Well-Being Scale was designed by Diener et al. (2009) in order to measure the existing well-being of individuals and to evaluate their well-being from a socio-psychological perspective. The Psychological Well-Being Scale consists of 8 items in a 7-point Likert type design. All the items in the scale are scored in a positive direction; there are no items scored in a negative direction. Accordingly, individuals can obtain a score ranging from 8 to 56 on the scale, and a high score on this scale indicates that the individual has rich psychological resources and strength (Diener et al., 2010). This scale, which was adapted into Turkish by Telef (2013), has a factor structure similar to its original version. The internal consistency coefficient of the Turkish version of this scale was reported as .80 in the reliability study. This study calculated its internal consistency coefficient as .85.

Meaning of Life Scale:

The Meaning of Life Scale was developed by Steger et al. (2006) to measure the meaning of life of individuals in two dimensions as the presence of meaning in life and the search for meaning in life. The scale consists of 10 items, including 9 positive items and 1 negative item. Steger et al. (2006) found the internal consistency coefficient of the sub-scale of the presence of meaning in life as .82 and that of the sub-scale of the search for meaning in life as .87. The test-retest results on the scale indicated .70 for the presence of meaning in life and .73 for the searched meaning. The scale was adapted into Turkish by Demirdağ and Kalafat (2015). The Turkish version of the scale presents the same structure as its original version; the internal consistency reliability coefficient is .81 for the presence of meaning in life whereas it is .85 for the searched meaning. The test-retest performed on the scale found the internal consistency coefficient as .72 for the presence of meaning in life and .76 for the search for meaning in life . This study determined the internal consistency coefficient as .92 for the sub-scale of the presence of meaning in life and as .84 for the sub-scale of the search for meaning in life.

Implementation

The sample of this study consists of students who pursue their education at different departments of the university at the undergraduate level. The Approval of the Ethics Committee was obtained from the Scientific Research and Publication Ethics Committee of Hatay Mustafa Kemal University in Social Sciences and Humanities, dated 03.05.2021 and numbered 14 for the conduct of this research. Also, the approval form explaining the purpose of this research and providing the

necessary information on the scales was presented to the students, and they were asked to check the relevant box if they agreed to participate in this research. Following that, the students who agreed to participate in this research were authorized to access the scales. In this way, data was collected from its participants in a virtual environment/digitally on a voluntary basis.

Data Analysis

The data of 347 students participating in the study were analyzed and missing and extreme values were identified in the measurement results of 24 students; thus, they were removed from the data set and this study was conducted with the resulting 323 data. The data showed a normal distribution; therefore, to analyze the data, this study conducted t-test to determine the relationship between the scores on the happiness, psychological well-being, and the meaning of life scales and gender; it further performed multiple regression analysis through SPSS 22 program to identify the predictive effect of meaning of life on happiness and psychological well-being.

Findings

This study has examined the relationships between the variables of the presence of and search for meaning in life and happiness. Table 1 presents the relationships between the variables, internal consistency coefficients and descriptive statistics related to these variables.

Table 1. Results of Relationships Between the Variables, Cronbach's Alpha Values and Descriptive Statistics

Variables	1	2	3	4
1. Happiness	1			
2. Presence of meaning in life	.47***	1		
3. Search for meaning in life	-.142**	-.191***	1	
Average	22.195	24.755	23.669	
Standard Deviation	5.33	6.45	7.76	
Cronbach's Alpha	.77	.92	.84	

***p<.001 **p<.01

As seen in Table 1, which offers findings on the relationships between the variables, there is a significantly positive relationship (p<.001) between happiness and the presence of meaning in life (r = .47). This study further determined a negative correlation at .01 level between happiness and the search for meaning in life (r = -.142) and another negative correlation at .001 between the searched meaning and the presence of meaning in life (r = -.191).

This study also examined the relationships between the variables of the presence of and search for meaning in life and psychological well-being. Table 2 presents the relationships between the variables, internal consistency coefficients and descriptive statistics related to these variables.

Table 2. Results of Relationships Between the Variables, Cronbach's Alpha Values and Descriptive Statistics

Variables	1	2	3	4
1. Psychological well-being	1			
2. Presence of meaning in life	.535***	1		
3. Search for meaning in life	-.003	-.191***	1	
Average	38.671	24.755	23.669	
Standard Deviation	8.565	6.45	7.76	
Cronbach's Alpha	.85	.92	.84	

***p<.001

Table 2 demonstrates that there is a significantly positive correlation (p<.001) between psychological well-being and the presence of meaning in life (r = .54). Moreover, a significantly negative correlation (p<.001) was found between the search for meaning in life and the presence of meaning in life (r = -.191).

This study performed multiple regression analysis to determine the explanatory effect of the presence of and search for meaning in life on psychological well-being; the results of this analysis are given in Table 3.

Table 3. *Results of Multiple Regression Analysis on Predictors of Psychological Well-Being*

Variables								
	B	SE_B	β	t	p	R	R^2	F
Regression coefficient Presence of meaning in life	.735	.063	.554	11.594	.000	.54	.30	67.211*
The searched meaning	.113	.053	-.102	2.144	.003			

*p<.001

Table 3 demonstrates that the results of the regression analysis to identify the predictive effect of the presence of and search for meaning in life on psychological well-being indicated that the presence of and search for meaning in life together significantly explain approximately 30% of the total variance in the scores of the students on psychological well-being. A striking finding is that the variables of the presence of meaning in life (t= 11.594, p<.001) and the search for meaning in life (t= 2.144, p<.01) are significant predictive variables on psychological well-being.

This study further carried out multiple regression analysis to explore the explanatory effect of the variables of the presence of and search for meaning in life on happiness. Table 4 shows the results of this analysis.

Table 4. Results of Multiple Regression Analysis on Predictors of Happiness

Variables	B	SE_B	β	t	p	R	R^2	F
Regression coefficient								
Presence of meaning in life	.383	.041	.464	9.273	.000	.47	.23	47.174*
Search for meaning in life	-.037	.034	-.054	-1.07	.286			

*p<.001

Table 4 presented the results of the regression analysis performed to find out to what extent the presence of and search for meaning in life explain the variance in happiness and showed that the presence of and search for meaning in life together significantly explain approximately 23% of the variance in the scores of the students on happiness (ΔR2=.23 p<.001). This study revealed that the variable of the presence of meaning in life (t= 9.273, p<.001) is a significant predictive variable on happiness. However, the variable of the search for meaning in life (t=-1.07, p>.05) is not a significant predictive variable on happiness.

This study lastly examined the scores of the students on the Meaning of Life Scale, Oxford Happiness Scale and Psychological Well-Being Scale by gender through the t-test. Table 5 presents the results of this analysis.

Table 5. T-test Results on The Scores of Students on The Meaning of Life Scale, Oxford Happiness Scale and Psychological Well-Being Scale by Gender

	Gender	N	x̄	S	sd	t	p
1. Presence of meaning in life	Female	236	24.907	6.061	321	.694	.488
	Male	87	24.345	7.435			
2. Search for meaning in life	Female	236	24.038	7.622	321	1.412	.159
	Male	87	22.667	8.075			
3. Happiness	Female	236	22.441	4.980	321	1.336	.173
	Male	87	21.529	6.164			
4. Psychological well-being	Female	236	39.081	8.347	321	1.415	.158
	Male	87	37.563	9.088			

Table 5 shows that the scores on the scales of the presence of meaning in life [t(321)=-.694, p>.05], and the search for meaning in life [t(321)= 1.412, p>.05], happiness [t(321)=1.336, p>.05] and psychological well-being [t(321)= 1.415, p>.05] do not differ significantly by gender.

Discussion

This study seeks to investigate the predictive effect of the meaning of life on psychological well-being and happiness among university students. It further explores whether there is a significant difference between the scores obtained by the students in relation to meaning of life, psychological well-being, and happiness by gender.

An important finding of this study is that the meaning of life predicts the psychological well-being of students at a significant level. It is remarkable that about 30% of the total variance in the scores of the students on psychological well-being is significantly explained by the meaning of life. Ryff (1989a) used the concept of the meaning of life and the concept of the purpose of life interchangeably in her study where she developed a scale on psychological well-being. In this regard, she considered the meaning of life as an indicator of psychological well-being, as a positive personality trait. This argument of Ryff perhaps underlines the significantly positive relationship between the meaning of life and psychological well-being. In the relevant literature, there are research findings on the significantly positive correlation between psychological well-being and the meaning of life. Rathi and Rastgi (2007) concluded that the meaning of life and psychological well-being are correlated at a high level and that this means when one perceives his/her life as meaningful, s/he will feel better psychologically compared to those who do not perceive their life as meaningful. Kleftaras and Psarra (2012) stated that the higher meaning of life is, the better the psychological well-being would be. Ivtzan et al. (2013) considered the meaning of life as well as self-actualization and personal growth as sub-dimensions of psychological well-being. Göçen (2019) conducted a study with pre-service teachers and revealed a significantly positive correlation between the presence of meaning in life and psychological well-being, which are among the sub-dimensions of the meaning of life but did not determine a significant correlation between the search for meaning in life and psychological well-being. The same study ascertained that the presence of meaning in life is a predictor of psychological well-being. Girgin (2018) performed a study to examine the relationship between psychological well-being and the meaning in life among university students and reported a significantly positive correlation between their psychological well-being and the meaning of life including the presence of and search for meaning in life. Likewise, Garcia-Alandete (2014) studied the relationship between the meaning of life and psychological well-being and indicated a significant positive relationship between these two. Their study also reported the meaning of life as an important and strong predictor of psychological well-being. Garcia-Alandete Martínez et al. (2018) expressed that the psychological well-being of individuals with a low level of meaning in life and a high level of meaning in life differed significantly. Krok (2015) stated that the meaning of life has an intermediary role between religious coping and psychological well-being. In another study, Zika and Chamberlain (1992) emphasized that the meaning of life has a stronger relationship with positively-evaluated psychological well-being rather than negative emotional states, and that there is thus a strong correlation between meaning in life and psychological well-being. Dezutter et al. (2013) examined the meaning of life under four different dimensions. Individuals were thus grouped in the following clusters: High Presence-Low Search, High Presence-High Search, Low Presence-Low Search, Low Presence-High Search. The results showed that the psychological well-being of the individuals in the High Presence and Low Search cluster and in the High Presence and High Search cluster is higher.

Another study argued that psychological well-being is positively related to optimism, happiness, and life satisfaction (Demirci and Şar, 2017). In a study that investigated the intermediary effect of the meaning of life on the relationship of psychological well-being by gender, a positive significant relationship between the present meaning and the searched meaning, and psychological well-being was found (Aytekin and Sakal, 2021). These findings support the results of this research.

When the first finding of the study are considered in terms of education policies; Some research confirms that the next stage of undergraduates' professional lives, psychological well-being and happiness levels, are important in terms of work efficiency and life satisfaction. In the descriptive study conducted by Arslan and Tura (2022), a significant relationship was found between teachers' life meaning levels and psychological well-being. Similarly, Göçen (2019) revealed that teachers' life meaning levels significantly predicted their psychological well-being. In a study conducted with teachers who did not start working unlike the teachers who worked, it was stated that the lifestyles of the teachers had a significant effect on their psychological well-being (Sezer, 2022). Granziera et al. (2023), which handled the effect of teachers' psychological well-being differently, stated that teachers' psychological well-being levels contributed to the academic success of students. Witnesseth, it can be said that the level of psychological well-being and positive emotions in business life have an important effect on both personal and work efficiency. Stating that the level of psychological well-being in business life can be gained with some skills during the university years, which is the previous stage, Smith et al. (2021), revealed that the psychoeducation program on the meaning of life for university students contributes to psychological well-being and positive emotions in their studies directly related to the result of this study. The first finding of our study, the predictive effect of the meaning of life and the level of psychological well-being on happiness, and the similar findings of other studies, reveal that it is important to develop educational policies on the meaning of life and psychological well-being at all levels of education.

A second finding of this study pointed out that the meaning of life significantly predicts the happiness level of the students; the meaning of life significantly explains about 23% of the total variance in the scores of the students on happiness. That is, there is a significant relationship between the meaning of life and happiness, and as the levels of the present meaning and the searched meaning increase, levels of happiness increase too. It is further remarkable that there is a relationship between happiness and the meaning of life, and that those who score high on the meaning of life also obtain high scores on happiness. (King and Napa, 1998). Similarly, previous research (Jonah Li et al., 2019; Bryan et al., 2020) yielded a decisively significant relationship between the meaning of life and happiness. A study was carried out by Bailey and Fernando (2012) to examine the effect of routine and project-based leisure time on happiness and the meaning of life. A total of 305 university students participated in this study. The structural equation modeling and regression analyses revealed that there

are significant relationships between the meaning of life, happiness, and routine recreation. Moreover, it is reported that social participation, personal opinions and time spent outside are strong predictors of happiness and meaning of life. Cavazos et al. (2014) stated that the meaning of life is a predictor of happiness. On the relationship between the meaning of life and subjective well-being, Doğan et al. (2012) found that these are positively correlated. Demir and Murat (2017) reported that the meaning of life as well as satisfaction and optimism are predictors of happiness. The study by Cömert et al. (2016) determined that the students who expressed that there is a meaning in their lives were more satisfied with their lives. It is further noted that this also highlights how strong the relationship between the meaning of life and happiness is, and that if the meaning of life decreases, people may experience depression, unhappiness or may even suicide. The literature also presents research findings that the meaning of life is a factor that protects individuals against negative emotional states such as stress, anxiety, depression, and suicide. Indeed, Braden et al. (2015) argued that the meaning of life significantly prevents depression and suicide. Further, Wilchek-Aviad (2015) noted that there is a negative correlation between the meaning of life and suicide. In another study conducted by Marco et al. (2017), it was found that the meaning of life has a preventive and protective role in unhappiness and suicide. Feldman and Snyder (2005) administered the scale of meaning in life, hope, depression, and anxiety to 139 university students. After performing a factor analysis, they concluded that hope is a component of meaning in life. Also, the regression analysis yielded that the concept of hope weakens the relationship between meaning in life and depression and meaning in life and anxiety. As for meaning in life, similar results are reported for the correlations between hope, depression, and anxiety. The study conducted by Seyrek and Ersanlı (2017) with university students, reported a significant relationship between the overall meaning of life and the sub-dimensions of the meaning of life, and the happiness levels of students. Yaran (2020) ascertained that there is a positive and significant correlation between the happiness levels of university students and the meaning in their lives. These above-mentioned findings support the findings of this study.

The final finding of this study is that there is no significant difference between the meaning in life, happiness, and psychological well-being among students by gender. Previous research also indicated that gender did not differ the meaning of life, happiness, and psychological well-being (Baş and Hamarta, 2015; Brassai et al., 2011; Canatan et al., 2015; Cömert et al., 2016; Yüksel, 2012; Saraç et al. , 2018), which is congruent with this study. Another study performed with 278 university students on the relationship between their cognitive flexibility and happiness, concluded that gender did not differ their happiness (Asıcı and İkiz, 2015). On the contrary, some studies concluded that gender leads to a difference on the meaning of life (Demirbaş-Çelik, 2016; Siwek et al., 2017). Siwek et al. (2017) claimed that the meaning of life is different in women and men. Likewise, Demirbaş-Çelik (2016) reported that gender revealed a significant difference in the meaning of life and that the scores of women on the meaning of life were higher than that of men. Sotgiu (2016) revealed that the

happiness levels of men are higher than the levels of women. Similarly, Akın and Şentürk (2012) used the data of the European Quality of Life survey as secondary data to conduct a study in 2006 and found out that men were happier than women. Agbo and Ome (2017) explored concepts of happiness and its determinants among young adults with a sample of 125 university students and ascertained that men tend to be happier than women. Studies that compared the psychological well-being of individuals by gender (Gürel, 2009; Nilsson et al., 2010; Anlı, 2011; Karabeyeser, 2013; Topuz, 2013; Özden, 2014; Sandıkçı, 2014) showed that the psychological well-being levels of women were higher than that of men. On gender, Göçen (2019) ascertained that the variable of being male had a negative correlation with psychological well-being. Ryff (1995) concluded that the levels of positive relationships with others and personal growth, which are sub-dimensions of the psychological well-being, among women were significantly higher than the levels of men. However, some studies pointed out that there is no significant relationship between gender and psychological well-being (Aytekin and Sakal, 2021; Girgin, 2018). These differences in research on the variables of the meaning of life, happiness, and psychological well-being, which are investigated in this research, are due to some reasons. One of them is that women can express themselves more easily in social relations, build deeper and more sincere relationships, and their social support systems are more functional than that of men. Besides, cultural factors and culture-specific gender roles may also cause such difference.

The findings of this study overall indicated that the meaning of life significantly predicted the level of psychological well-being of students; that the meaning of life significantly explained about 30% of the total variance in the scores of the students on psychological well-being. It is further notable that the meaning of life significantly predicts the happiness level of the students; the meaning of life significantly explains about 23% of the total variance in the scores of the students on happiness. This study lastly found out that there is no significant difference between the meaning in life, happiness, and psychological well-being among students by gender. Based on the findings, this study can offer several suggestions. First, investigating the relationship between the same variables through a different sample would be a great contribution. Considering the predictive effect of the meaning of life variable examined in this study, future research may focus on the levels of the meaning of life among different individuals. That is, it may be useful to perform a similar study, but with different variables, to offer deeper insights into the variables related to the meaning of life and the potential intermediary roles. This study was conducted for undergraduates as it is a preparation process for university life in the university period. In addition, since individuals form their personality development during adolescence, studies can be carried out with these variables related to adolescence. This study has revealed that the meaning of life is effective. Therefore, experimental studies can be planned to develop skills related to the meaning of life for students. In addition, at the level of educational policies, psychoeducation programs on the meaning of life and psychological

well-being appropriate to age and development level at each level of education can be developed and integrated into guidance studies.

Policy Implications

When the findings of the study are considered in terms of education policies; Some research confirms that the next stage of undergraduates' professional lives, psychological well-being and happiness levels, are important in terms of work efficiency and life satisfaction. In the descriptive study conducted by Arslan and Tura (2022), a significant relationship was found between teachers' life meaning levels and psychological well-being. Similarly, Göçen (2019) revealed that teachers' life meaning levels significantly predicted their psychological well-being. In a study conducted with teachers who did not start working unlike the teachers who worked, it was stated that the lifestyles of the teachers had a significant effect on their psychological well-being (Sezer, 2022). Granziera et al. (2023), which handled the effect of teachers' psychological well-being differently, stated that teachers' psychological well-being levels contributed to the academic success of students. Witnesseth, it can be said that the level of psychological well-being and positive emotions in business life have an important effect on both personal and work efficiency. Stating that the level of psychological well-being in business life can be gained with some skills during the university years, which is the previous stage, Smith et al. (2021), revealed that the psychoeducation program on the meaning of life for university students contributes to psychological well-being and positive emotions in their studies directly related to the result of this study. The first finding of our study, the predictive effect of the meaning of life and the level of psychological well-being on happiness, and the similar findings of other studies, reveal that it is important to develop educational policies on the meaning of life and psychological well-being at all levels of education.

In addition, at the level of educational policies, psycho-education programs on the meaning of life and psychological well-being appropriate to age and development level at each level of education can be developed and integrated into guidance.

Conflict of Interest

No potential conflict of interest was reported by the authors.

Author Credit Statement

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Ethical Statement

Ethical approval has been obtained from the Hatay Mustafa Kemal University ethics committee of scientific research with the decision numbered 14 on 03 May 2021.

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Examining the Persuasive Speech Proficiency of Fourth-Grade Primary School Students[1]

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Abstract

The aim of this research was to identify the persuasive speech skills of fourth-grade primary school students. The study employed a quantitative method and survey design, and the study group consisted of 126 students in the fourth grade of primary school selected using a convenient sampling technique. Data for the first and second sub-problems of the study were collected over a period of five weeks using student video recordings, plan sheets, and a persuasive speech rubric. These recordings and sheets were assessed by two raters. The collected data were presented in the form of themes and descriptive tables. The results of the study indicated that the persuasive speech skills of the students were largely at medium and low levels. In addition, the results showed that female students demonstrated relatively higher levels of success in terms of persuasive speech skills compared to male students. A literature review was also conducted for the third sub-problem of the research, and examples of achievements in relation to persuasive speech skills for fourth-grade students were presented. Based on the results of this study, it can be concluded that students generally require the development of their speaking skills, with a particular focus on persuasive speech.

Keywords: Speaking, Persuasive Speech, Level of Determination

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Introduction

Speaking is an essential skill for individuals to convey their thoughts, feelings, and opinions. Effective and efficient communication is often achieved through speaking, making it a prevalent activity in both daily and academic settings. The content, structure, and contextual factors of a speech contribute to its classification based on its purpose, method, speaker-listener relationship, level of preparation, and form. These categories can include informative and entertaining speeches, free and planned methods, interactive and non-interactive speaker-listener relationships, prepared and unprepared speeches, and questioning, descriptive, and persuasive forms (Örge-Yaşar, 2020).

Persuasive speeches are a type of communication that plays a vital role in everyday life, similar to other types of communication. In the literature, persuasive speeches are commonly referred to as a type of discourse (Altunbay, 2021, p. 60; Kardaş, 2020; Kardaş & Tunagür, 2018, p. 144; MEB, 2009, p. 355; Yalçın, 2018, p. 329), a method of communication (Gündüz & Şimşek, 2014; MEB, 2006, p. 64), a communication strategy (Kurudayıoğlu & Kiraz, 2020; MEB, 2019, p. 47), or a form of communication (Güneş, 2021, p. 125). Due to their rich content, purpose-oriented nature, requirement for preparation, and structured format, persuasive speeches can be considered a type of prepared communication.

In a persuasive speech, the speakers aim to agree with the listener about the view they present and explain to the listener using evidence for this purpose (Demirel & Şahinel, 2006, p. 174; Kardaş & Tunagür, 2018, p. 144). In a persuasive speech, the views presented by the speaker should be acceptable (Güneş, 2021, p. 124); arguments should be appropriate to the cognitive level of the listener, and the message should be presented in an easily accessible structure (Kurudayıoğlu & Gociaoğlu, 2021, p. 315). In addition, speech elements such as body language, the method of vocalising the text, and tone of voice (Akım, 2015) also have an essential place in persuasion. In terms of content, the richness of style, examples, stories, and irony increase the effectiveness of persuasive speech and play a role in the message reaching the audience more easily (İnceoğlu, 2011, p. 226). In addition to these elements, in persuasive speech, the speaker should be polite, use concrete examples, adopt fluent expression, repeat the main idea from time to time, avoid undesirable behaviours in the speech, adopt an expression from simple to complex (Yağmur-Şahin, & Varışoğlu, 2015, 125-126), observe the reactions of the listeners by including different perspectives (MEB, 2009, p. 355), and convey the opinion they put forward to the listeners clearly and concisely (Lucas, 2011, p. 300). In the preparation process of persuasive speech, the content should be prepared by considering the following elements (Karadoğan-Doruk, 2015, 60-63):

- Adopt a common language and style that can be understood by the audience,

- The sociocultural values and beliefs of the audience should be considered,

- By ensuring that the message is repeated from time to time to remarkable elements such as slogans,

- The message should be planned to be bidirectional between the listener and the speaker,

- The argument should be supported by accurate and reliable evidence,

- An appropriate communication environment should be selected, and distractions in the environment should be taken under control,

- In the conclusion part, the action expected from the audience and the main idea should be presented clearly and concisely,

- Negative elements such as fear should be used in moderation,

- Humorous elements related to the subject should be included to attract attention and involve the listener in the subject.

Persuasive speech is a type of speech that needs to be taught because of its strong content, the need for preparation, the fact that they consist of many sub-skills, and that they are based on communication and entrepreneurship. Teaching persuasive and argumentative speech types suppresses students' tendency to express themselves by shouting and provides them with the competence to express their views clearly and effectively with a democratic approach (Grugeon, Dawes, Smith, & Hubbard, 2005, p. 87). On the other hand, it supports students in terms of academic and social life by providing awareness and expression power in this genre, which is frequently encountered in daily life. Otherwise, students are prone to be deceived, to be passive recipients and to become impressionists. Because being able to speak effectively and persuasively contributes to individuals' awareness of the tendency to influence and direct massively (Özkan, & Kınay, 2015, p. 1292). In addition, the persuasive speech process involves a mental exchange between the listener and the speaker (Lucas, 2011, p. 303). This communication points to a very productive process for the speaker and the listener.

Given that persuasive elements are ubiquitous in daily life, it is essential to teach students the structure of persuasive speech. However, while the persuasive speech was previously included in the curriculum at the third-grade level (MEB, 2006; MEB, 2009), it is currently only included in a general acquisition of speaking strategies at the eighth-grade level, with a few speech types mentioned (MEB, 2019). This suggests a gap in persuasive speaking skills for primary school students. This study aims to investigate the current state of students' knowledge in this area, with the goal of filling this gap. It is anticipated that the findings of this research will be useful for researchers, teachers, and students in the field.

This study aims to determine primary school fourth-grade students' persuasive speech skill levels. In line with this purpose, answers to the following questions were sought:

1. What is the level of persuasive speech achievement of fourth-grade primary school students?

2. Do primary school fourth-grade students' persuasive speech achievement levels differ according to gender?

3. Which achievements should be included in order to develop students' persuasive speech?

Method

Research Design

This research was designed in a survey design, one of the quantitative research approaches. In survey research, the participants' characteristics are measured, or their current situation is determined (Atalmış, 2019, p. 97) and analysed and interpreted (Creswell, 2012, p. 376). Thus, it reflects the situation of a group as it is. In this study, the survey design was preferred since it was aimed to determine the current level of students' persuasive speech.

Working Group and Materials

The study group for this research consists of 126 fourth-grade primary school students from the 2021-2022 academic year. The group is evenly divided between 63 females and 63 males and was selected using a convenient sampling technique.

For the third sub-problem of the research, the elements of persuasion were revealed by conducting a literature review, examined in this direction, and organised and presented as an acquisition proposal suitable for the fourth-grade level. The following materials were utilised in the process of gain formation:

- Turkish teaching programs (MEB, 2006; MEB, 2009; MEB, 2015; MEB, 2019)

- Textbooks and workbooks (Kaftan-Ayan, Arslan, Kul, & Yılmaz, 2021; Karafilik, Bozkır, & Koç, 2020; Uğur-Yalçın, 2019)

- Books and articles (Akım, 2015; Aktaş, 2020; Altunbay, 2021; Bıyık, 2018; Blivens, 2003; Bozkurt, 2017; Demirel, & Şahinel, 2006; Deniz, 2007; Göçer, 2018; Gündüz, 2007; Gürlek, 2015; Gürüz, & Temel-Eğinli, 2013; İnceoğlu, 2011; Karadoğan-Doruk, 2015; Kardaş, & Tunagür, 2018; Konuk, 2017; Kurudayıoğlu, & Yılmaz, 2014; Lucas, 2011; Monroe, 1943; Taşer, 2009; Tutar, & Yılmaz, 2010; Yağmur-Şahin, & Varışoğlu, 2015; Yalçın, 2018; Yangil, & Topçuoğlu, 2019)

Data Collection Tools

The data relating to the first and second sub-problems of the study were collected through the students' speech plan papers, video recordings, and the persuasive speech rubric developed by Özdil and Duran (2023) for primary school fourth-grade students. The persuasive speech rubric is in the form of an analytical rubric consisting of 14 categories, which allows students to be evaluated in terms of quality.

The assessment rubric for this study includes 14 categories: "planning," "attracting attention," "expressing the problem situation," "expressing the solution," "visualisation," "directing to action," "supporting and justifying thoughts," "appealing to emotions," "maintaining subject integrity," "starting and ending a conversation," "voice utilisation," "fluency," "body language," and "use of time.". It is designed for primary school fourth-grade students and consists of three levels of proficiency: "high," "medium," and "low.". While the rubric does not assign numerical scores, it aims to reflect the students' levels of achievement in each category.

Data Collection Process

With the necessary permissions obtained for the data related to the first and second sub-problems of the study, the study group was formed based on the voluntary participation of the students. The implementation was conducted in collaboration with the class teachers to minimise disruption to the students' lesson plans. The researcher served as a listener during one-hour application classes. A one-hour acquaintance activity and a two-hour taboo game activity were then organised in all classes in a chat atmosphere with the students. During the game, students were given the opportunity to explain their words on the board in front of the camera to become more comfortable with the camera and the researcher. At the end of the game, a conversation about persuasion was held to introduce the topic. Topics were selected based on the opinions of fourth-grade primary school students and written on the board, and students were asked to choose a topic and prepare a persuasive speech on that topic. Students were provided with paper and told they could use it in any way they saw fit. Since the break between the two lessons coincided with a one-hour lunch break, no additional time was needed (as determined in consultation with the students). Then, the students were asked to prepare their speech in the first lesson and to present their speech in the second lesson. The speeches of the students were recorded.

The data relating to the third sub-problem of the research were collected using the document review technique. Acquisitions related to persuasive speech were formed by examining books, journals, theses, articles and Turkish teaching programmes. Expert opinions were obtained from three Basic Education, two Turkish Education experts and three classroom teachers. In line with the opinions, persuasive speech acquisitions were prepared for fourth-grade primary school students.

Analysing the Data

In the process of data analysis the video recordings and plan papers of the students were evaluated by two raters using a persuasive speech rubric. Prior to the evaluation, the raters received preliminary training on a persuasive speech from the researcher. The scores were then compared, and a consensus was reached. The data of the study were presented and interpreted using the descriptive analysis technique. In the descriptive analysis technique, it is about revealing the existing qualities of a situation (Yıldırım & Şimşek, 2015).

Results

Results Related to the First and Second Sub-Problems

In the first and second sub-problems of the study, the level of students' persuasive speech achievements and whether these levels differed according to gender were examined. Student performances evaluated through the rubric are presented in Figure 1 and explained in categories.
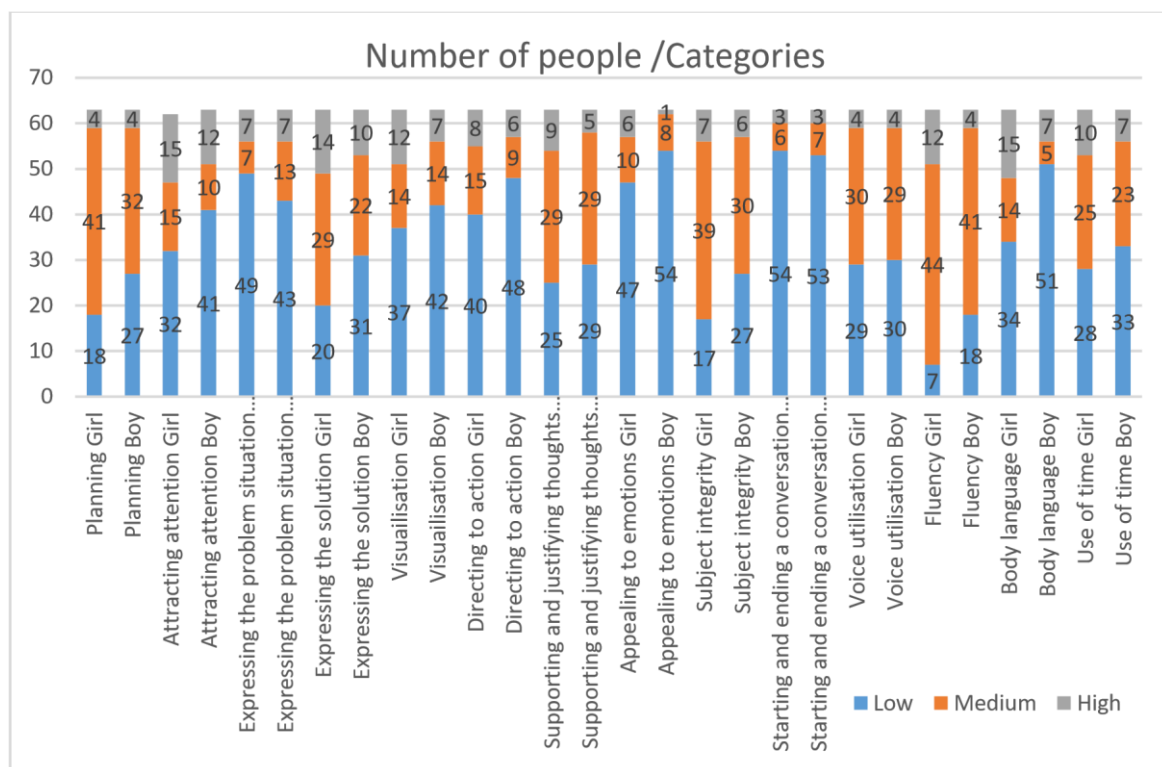
Figure 1. Students' Persuasive Speech Achievement Levels

The planning stage of a persuasive speech involves the creation of a written outline detailing the content and structure of the speech, including verbatim expressions or keywords to be used. In the planning category, 45 students (18 females, 27 males) demonstrated low-level success, 73 (41 females, 32 males) demonstrated medium-level success, and 8 (4 females, 4 males) demonstrated high-level success. The majority of students displayed medium-level success in this category,

characterised by superficial expressions related to the topic and limited content in the speech. Students with high-level success exhibited a more organised and detailed approach to planning, including a sequential structure or concise, well-planned language. On the other hand, some students demonstrated low-level success through the use of various text types, such as writing a few sentences about the topic, writing a story, or composing an informative text. Some students also utilised visual aids, though not all incorporated these aids into their speeches. When evaluated by gender, the number of students with high-level success in this category was equal between males and females, while female students were more prevalent among those with medium-level success.

Attention-grabbing takes place in the introductory part of a speech and plays a vital role in directing the listener to the content. In the category of attracting attention, 73 of the students (32 females, 41 males) showed low, 25 (15 females, 10 males) medium, and 27 (15 females, 12 males) high-level success. It was revealed that the students predominantly showed a low level of success in this category. In other words, the majority of the students did not start their speech by drawing attention. It was revealed that the students with a medium level of success tried to attract the attention of the listener with expressions that were not related to the topic and did not use them in the introduction part of the speech, even if it was included in the plan. On the other hand, it was determined that the students with a high level of achievement made an introduction by using information, asking questions, using pictures and remarkable expressions related to the subject. When the performances of the students were analysed according to gender, it was seen that female students were slightly more prominent than male students.

Expressing the problem situation is an important step that prepares the ground for the necessity of the action to be persuaded in a persuasive speech. In the category of expressing the problem situation, 92 of the students (49 females, 43 males) showed low, 20 (20 females, 13 males) medium, and 14 (7 females, 7 males) high-level success. It was revealed that the students who participated in the study performed predominantly at a low level in the category of expressing the problem situation. These students did not express the problem situation in their speeches. It was revealed that the students with a medium level of achievement expressed the problem situation superficially and did not deepen the subject. On the other hand, it was revealed that the students with a high level of achievement justified the problem situation and explained it by supporting it with examples. When the performances of the students were evaluated according to gender, it was seen that male students came to the fore in this category.

Expressing the solution is the stage in which the action expected from the listener is explained. In the category of expressing the solution, 51 (20 females, 31 males), 51 (29 females, 22 males), 24 (14 females, 10 males) and 24 (14 females, 10 males) students performed at low, medium and high levels of success, respectively. It was revealed that the students participating in the study

predominantly showed low and medium-level achievement. Although the students accepted at the medium level included the solution for the problem situation, they did not explain it sufficiently and expressed it superficially. Students with a low level of achievement did not propose any solution for the problem situation that formed the basis of the content. On the other hand, it was determined that the students with a high level of success clearly expressed the solution and made explanations about the functioning of the solution. When the performances of the students are evaluated according to gender, it is seen that female students come to the forefront.

Visualisation is an element of persuasion in which the listener is presented with a point of view in order to make a decision according to the consequences of the action to be performed. In this category, 79 (37 females, 42 males), 28 (14 females, 14 males), 19 (12 females, 7 males) and 19 (12 females, 7 males) students performed at low, medium and high levels, respectively. It was found that the students performed predominantly at a low level in this category. Low-level students did not use expressions that could correspond to this category in their speeches. It was determined that the students with a medium level of achievement made comparisons about the application of the solution but did not strengthen it, while those with a high level of achievement made comparisons and presented an objective point of view to the audience. When the students' performances were evaluated according to gender, it was found that female students were more successful than male students.

Mental imagery, or the ability to present a perspective that allows the listener to make a decision based on the anticipated outcomes of a proposed action, is a persuasive element. In this category, 79 of the students (37 females, 42 males) demonstrated a low level of proficiency, 28 (14 females, 14 males) demonstrated a medium level, and 19 (12 females, 7 males) demonstrated a high level. It was determined that the majority of students demonstrated a low level of proficiency in this category. Students at the low level did not use appropriate expressions in their speeches to reflect this category. While students at the medium level made comparisons in their proposed solutions, they did not strengthen them. In contrast, students at the high level provided an objective perspective to the listener through comparisons. When the students' performances were evaluated according to gender, it was found that female students were more successful than male students.

Prompting to action is the stage in a persuasive speech where the speaker aims to mobilise the listener and motivates them to take action. In the category of prompting to action, 88 of the students (40 female, 48 male) showed low, 24 (15 females, 9 males) medium, and 14 (8 females, 6 males) high-level success. It was revealed that the students who participated in the research predominantly showed a low level of success in leading to action. These students completed their speeches without using any expression related to mobilising the audience. The students with a medium level of success expressed their opinions superficially and to the extent that they did not directly serve as motivation.

The students with a high level of achievement used techniques such as using slogans, making suggestions, and challenging the audience in addition to expressing their opinions. When the students' performances were evaluated according to gender, it was observed that female students were more successful than male students in this category.

Supporting and justifying ideas are essential in terms of increasing credibility and effectiveness in persuasive speech. In this category, 54 of the students (25 females, 29 males) showed low success, 58 (29 females, 29 males) showed medium success, and 14 (9 females, 5 males) showed high success. It was determined that the students who participated in the research mainly showed moderate success at this stage. Students with moderate success used expressions that supported the ideas they put forward in their speeches, although not at a sufficient level. Students with low levels of success expressed their opinions with limited sentences during the speech without using any expressions that supported and justified their thoughts throughout the speech. On the other hand, students with a high level of achievement utilised techniques such as exemplification, using visuals, using slogans, using idioms and proverbs, making explanations, and making comparisons in their speeches. Two students who participated in the study also used the techniques of using aphorisms and references. When the students' performances were analysed according to gender, it was found that female students were more successful than male students.

Appealing to emotions in persuasive speech is one of the most important elements that play an encouraging role in convincing the listener. In this category, 101 students (47 females, 54 males) showed low, 18 (10 females, 18 males) medium and 7 (six females, 1 male) high-level success. It was found that the students who participated in the study predominantly showed a low level of success in the category of appealing to emotions. These students did not include emotional expressions in their speeches in any way. The students with a medium level of success included emotional expressions, albeit weakly, in terms of reflecting their emotions with gestures and facial expressions in terms of making an impression. Students with a high level of success used emotional expressions in accordance with the content and supported their speeches with gestures and facial expressions. When the students' performances were analysed according to gender, it was found that female students were more successful than male students.

Subject integrity is an indispensable element of a composition. The students who participated in the research showed a moderate level of success in the category of subject coherence. In the category of topic coherence, 44 of the students (17 females, 27 males) showed low-level success, 69 (39 females, 30 males) showed medium-level success, and 13 (7 females, 6 males) showed high-level success. It was observed that the students with moderate success made mistakes in presenting information in a particular order and making interrelated explanations during the speech and therefore presented partially coherent content. It was observed that the students with a low level of success

went off-topic and did not form the content from coherent explanations. On the other hand, students with a high level of achievement delivered their speeches consistently, logically and in a particular order from the beginning to the end. When the students' performances were analysed according to gender, it was found that female students were more successful than male students.

A speech starts with greeting the listeners and ends with expressions such as thanking, etc., signalling the end of the speech. In this category, 107 of the students (54 females, 53 males) showed low, 13 (6 females, 7 males) medium, and 6 (3 females, 3 males) high-level success. It was determined that the students who participated in the study showed a predominantly low level of success in the category of starting and ending a conversation. Students with this level of success started the conversation directly and left the board without using any address or greeting. It was observed that the students with a medium level of achievement used only one of the conversation initiation and termination or used expressions such as "see you later, goodbye". On the other hand, it was observed that the students with a high level of success started their speech with a greeting and address sentence and completed it by thanking the listener or using expressions such as "I am ending my speech here". When the student performances were evaluated according to gender, it was observed that both genders performed equally.

As in all speeches, effective use of voice is essential for a persuasive speech. In this category, 59 of the students (29 females, 30 males) showed low, 59 (30 females, 29 males) medium, and 8 (4 females, 4 males) high-level success. It was observed that the students who participated in the research showed mainly medium and low-level success in the category of effective use of voice. It was observed that the students who were accepted at the medium level used their voices at an audible level but made mistakes in stress and intonation. On the other hand, students with a low level of achievement used their voices at a height that even the students in the middle ranks had difficulty in hearing, spoke without stress and intonation, and failed in speed. On the other hand, students with a high level of achievement used their voices successfully in height, speed, stress and intonation. When the student performances were evaluated according to gender, it was found that the groups were equally successful.

One of the factors that play a role in making a speech comprehensible for the listener is fluency. In the fluency category, 25 of the students (7 females, 18 males) showed low, 85 (44 females, 41 males) medium, and 16 (12 females, 4 males) high-level success. The students who participated in the study predominantly showed medium-level success in the fluency category. It was revealed that the students accepted at this level occasionally made mistakes such as making expression disorders, using unnecessary repetitions, mispronouncing words, and saying sentences and paragraphs without transition. On the other hand, low-level students were found to make mistakes such as making meaningless sentences to disrupt the fluency of the speech, making unnecessary repetitions,

frequently making unnecessary sounds during the speech and speaking without switching between sentences and paragraphs. The students with a high level of achievement completed their speech fluently. It was observed that the students who were accepted at this level of success made acceptable mistakes according to the level. When the performances of the students are analysed according to gender, it is seen that female students come to the forefront.

Body language is an important factor in creating effective and aesthetically pleasing speech. Among the participants in the study, 85 (34 females, 51 males) demonstrated low levels of proficiency in body language, 19 (14 females, 5 males) demonstrated medium levels, and 22 (15 females, 7 males) demonstrated high levels. Overall, the students in the study exhibited low levels of success in the body language category. Those in the low proficiency group tended to exhibit unnatural posture, insufficient use of gestures and facial expressions, and lack of eye contact. While those in the medium proficiency group made these mistakes occasionally, they generally attempted to utilise body language elements. In contrast, those in the high proficiency group demonstrated success in terms of posture, gestures, facial expressions, and eye contact. Analysis by gender revealed that female students were more successful than male students in this area.

Time management in speaking refers to the amount of time allocated to the speaker. It is crucial for a speaker to adjust the time needed to convey their thoughts effectively. During the study, no time constraints were imposed on the students, and they were allowed to speak until they finished without intervention. Of the participants, 61 (28 females, 33 males) demonstrated low levels of proficiency in time management, 48 (25 females, 23 males) demonstrated medium levels, and 17 (10 females, 7 males) demonstrated high levels. Overall, the students in the study exhibited predominantly low levels of success in this category. At this level, students' speeches were inadequate in terms of achieving their intended purpose. Only one student used unnecessary filler words and extended their sentences and examples, resulting in a longer speech than their peers. Students in the medium proficiency group also made limited speeches that did not adequately address their purpose, leading to short speaking times. In contrast, those in the high proficiency group included persuasive elements in their speeches and effectively used their allotted time to achieve their purpose. Analysis by gender showed that female students outperformed male students in this area.

As a result of the analyses, it was determined that the students had difficulty in preparing a speech plan, presented content without subject integrity, spoke out of the main idea, used independent sentences, made their speeches without ordering them in accordance with the sections, tended to read what they wrote, spoke with poor body language, made unnecessary repetitions during the speech, made unnecessary pauses, and often went off topic during the speech. On the other hand, it was observed that they had problems such as not using time appropriately for its purpose, not using transitions between sentences and sections, not speaking with an audible tone of voice, not using

emphasis and intonation, not using appropriate expressions when starting and ending the speech, not appealing to emotions, not justifying their thoughts, not including expressions that would stimulate the listener, not starting their speech with a remarkable introduction. In addition to the findings obtained through the rubric, it was observed that although students were given enough time to rehearse during the application process, they did not perform a practical preparation process in this regard and only a few students prepared by speaking on their own and tried to stand up and speak. In addition, some students made a speech utterly independent of the content or made an unsuccessful speech by going to the board without any preparation. When student performances were analysed according to gender, it can be said that female students were more successful than male students in the categories of planning, attracting attention, expressing the solution, visualising, directing to action, supporting and justifying thoughts, appealing to emotions, subject integrity, fluency, body language and time. It was observed that both groups were equally successful in the categories of starting and ending the speech and effective use of voice. In the category of expressing the problem situation, males were more successful than females. However, it should be taken into consideration that the differences between male and female students are pretty slight.

Results Related to the Third Sub-Problem

For the third sub-problem of the study, "Which learning outcomes should be included in order to improve students' persuasive speech?", the literature was analysed, and learning outcomes for primary school fourth-grade students were formed. The learning acquisitions are presented in Table 1.

Table 1. Acquisition Suggestions for Persuasive Speech

Skill Area	Acquisitions	Explanations Regarding the Acquisition
Listening	S/he can distinguish persuasive texts among the types of texts he/she listens to.	*Persuasive texts are made felt through videos such as public service announcements.*
	In the speeches he/she listens to, s/he can realise how the speaker uses language to persuade the listeners.	*It is ensured that the students recognise the elements of persuasion, such as the speaker's tone of voice, emphasis, and intonation.*
Speaking	S/he can start his/her speech with a remarkable introduction.	*Students are encouraged to use techniques such as asking questions, giving information, telling case studies, and using pictures.*
	S/he can make a persuasive speech in front of the public.	*Students are encouraged to make persuasive speeches for different target audiences and subjects.*
	During the speech, s/he can deepen the opinion s/he puts forward to convince the listener.	*Students are encouraged to deepen the subject by presenting the problem situation, explaining the solution, giving examples, and using references in order to increase the credibility of the subject they want to persuade.*

		S/he can conclude the speech with a striking conclusion about the expected change in behaviour or thought.	*Students are supported to use techniques such as challenge, visual presentation, and an invitation to action while finishing their speech.*
Reading		S/he can distinguish persuasive texts among the types of texts they read.	*Students are encouraged to recognise the elements of persuasive texts.*
		S/he can recognise persuasive elements in visual elements.	*It is ensured that students recognise the elements of persuasion through visuals that aim to persuade, such as posters.*
Writing		S/he can write persuasive texts.	*Students are encouraged to write persuasive texts for different target audiences and topics.*

These acquisitions, which are suggested in terms of persuasive speech at the primary school level, can also be addressed at the secondary school level by repeating and expanding them. While preparing the acquisition proposals, the fourth-grade level was taken into consideration by taking into account the existing acquisitions in the first, second and third grades.

Discussion, Conclusion and Recommendations

This study aimed to determine the level of persuasive speech achievement of primary school fourth-grade students. For this purpose, students' speeches were evaluated. As a result of the evaluation, it was seen that the students preferred reading aloud instead of making a speech. In addition, it was determined that they showed weak and moderate success in terms of persuasive speech elements. This situation can be explained by the fact that fourth-grade students do not encounter prepared speech frequently, and persuasive speech is not included in textbooks and teaching programmes at this level.

In the process of evaluating the students, both raters took into consideration that the errors of the students were at an acceptable level. However, the fact that the students failed in the categories, including the basic speaking outcomes, indicates that there is a gap in the development of speaking skills. Besides, considering that speaking skill is affected by cultural capital (Dölek, & Dolunay, 2022) the findings of the research can be evaluated within the context of the cultural background of students. On the other hand, it was observed that the students were not unfamiliar with the persuasive speech type and enjoyed the application process. This situation is a justification for teaching persuasive speech to students.

Based on the findings, it can be said that students use speaking strategies at a low level in terms of the fourth-grade level. Because it was observed that students showed low success in many categories, such as using their voice effectively, speaking fluently, starting, and ending the speech with an appropriate expression, speaking with correct body language and using time effectively.

However, these skills are gradually included in the Turkish Language Teaching Programme (MEB, 2019) starting from the first grade. This situation indicates that students need support in terms of speaking skills. Because it should not be forgotten that communication in most areas takes place on the basis of speaking, and speaking is the fastest way to include the individual in life (Sağlam, & Doğan, 2013, p. 45).

Since it is one of the types of prepared speeches, the teaching of persuasive speech also includes persuasive writing. Studies have concluded that fifth-grade students (Kan, & Erbaş, 2017; Kaptan, 2015), secondary school students (Leon, 2008), and prospective Turkish teachers (Kurudayıoğlu & Yılmaz, 2013) are weak in persuasive writing. When the persuasive texts written by the students in their speech preparations are considered, the findings of the research are similar to the studies in the literature.

According to the Turkish Teaching Programme (MEB, 2019), students encounter prepared to speak for the first time in the fourth grade. However, it can be said that this encounter is a delayed situation. So much so that a student studying in the third grade can make a speech about a subject, he/she has researched and written before. In the fourth grade, these studies can be strengthened by dealing with different genres. In addition, the gains related to using transition words and applying speaking strategies, which students encounter for the first time in the fifth grade, can also be carried to early levels. In the study, acquisition suggestions that will serve the persuasive speech skills of primary school fourth-grade students were included. These suggestions are helpful for different types of speeches and improve the teaching of speaking in general and the teaching of persuasive speech in particular. Many studies (Atik, & Aykaç, 2017; Bayburtlu, 2015; Kalaycı, & Yıldırım, 2020) show that Turkish curricula have weakened in terms of quality and quantity from 2009 to 2019. In this case, one of the negatively affected learning areas was speaking, and one of the outcomes was persuasive speech. For this reason, the acquisitions included in the findings of the study can be expanded and handled with a holistic approach in terms of longitudinal learning and can be added to the curricula. In addition, activities can be included in textbooks to support persuasive speech.

Based on the results of the research and the literature review, it can be said that teaching persuasive speech should be emphasised. In this sense, starting from the first level of primary school, students' free and prepared speaking-writing skills should be supported, and different types of speaking skills, such as speaking in general and persuasive and critical speaking in particular, should be developed gradually. Public speaking activities should be included in the lessons, students should be given the opportunity to write informative texts and justify and explain their thoughts while speaking and writing. Practices such as improvisation techniques (Grayson & Napthine-Hodgkinson, 2020) and storytelling (Doğan & Çifci, 2021) should be addressed to support students' learning of speaking rules. In addition, practical studies should be carried out at different grade levels to improve

students' persuasive speech skills. For this purpose, teaching advertising literacy and argumentation (Locke-Stanley, 2017) should be supported in areas such as critical reading and writing (Erkek, 2022). Because through persuasive texts, directives such as showing witnesses and quotations support students' different learning (Okur, Göçen, & Süğümlü, 2013, p. 195).

Teaching and assessing oral communication skills can be challenging and time-consuming (Dockrell, Lindsay, Roulstone, & Law, 2014; Roberts & Billings, 2009; Walker, 2014). However, given that speaking skills are utilised in every aspect of daily life, it is important to prioritise their development. Teachers play a crucial role in shaping students' speaking skills, as their own speaking habits and mistakes may be reflected in their students (Yustina, 2012). In a study by Kasa-Ayten and Hatipoğlu (2021), classroom teachers reported that they did not have enough time to dedicate to developing students' speaking skills and that they needed in-service training in this area. Similarly, Erdogan, Uzuner, and Gülay (2018) found that classroom teachers felt inadequate in teaching oral communication skills and reported not incorporating engaging activities or sufficient diversity in their lessons. In a separate study on persuasive writing (Zelzele & Ateş, 2022), classroom teachers indicated that they had a limited understanding of teaching persuasive writing, were hesitant to teach it, and needed training on the subject. Additionally, the lack of sub-skills related to persuasive writing, the curriculum's failure to address this skill, and a lack of resources were identified as barriers to teaching persuasive writing. Based on these findings, it is advisable to prioritise training in persuasive genres, both in writing and speaking, in teacher education programs.

Policy Implications

It is possible to encounter persuasive communication examples in all areas of life. So much so that the teaching process takes place through persuasion (Akkaya, 2020). For this reason, it is important to raise awareness of persuasion to students from the preschool period. This awareness is possible by considering the type of persuasion within the scope of basic language skills. Knowing persuasive language contributes to students in terms of creating an argument and shaping valuable knowledge at school (Thomas, & To, 2016). For this reason, it is very important to teach students reading, listening, speaking, and writing in persuasion communication. This study focused on students' persuasive speaking skills. Students who develop persuasive speech skills become successful in communication, problem-solving, and self-confident individuals in the future (Kurudayıoğlu, & Sevindik, 2020). However, in this study, it was concluded that primary school fourth-grade students need to be developed in terms of oral expression in general and persuasive speaking in particular. Based on this result, acquisitions within the scope of basic language skills for primary school fourth graders have been proposed to be used in the regulation of curriculum. These gains should be expanded and developed gradually in curricula with a holistic approach. In this context, it is

anticipated that the study will shed light on education policies and stakeholders working in the relevant field.

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Author 1: Investigation, Conceptualization, Methodology, Writing-Original draft preparation, Data Curation, Formal Analysis.

Author 2: Supervision, Investigation, Conceptualization, Methodology, Writing-Original draft preparation, Data Curation, Formal Analysis, Writing-Reviewing and Editing.

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Seeking a Solution for Summer Reading Loss[1]

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Abstract

The study was carried out to determine whether Turkish primary school 1st graders experienced reading loss during the summer holidays and whether giving book support to disadvantaged students during the summer holidays was effective in preventing this loss. The research was conducted with 26 students at a rural primary school. The pretest-posttest quasi-experimental design was used, and while the experimental group including 12 students carried out reading activities during the summer holiday as part of the 'Telafide Ben De Varım' (I Am in for the Remedial) program, the control group consisting of 14 students did not participate in any summer reading. In the study, the "Error Analysis Inventory" prepared by Akyol (2020) based on Harris and Sipay (1990), Ekwall and Shanker (1988) and May (1986) was used as the data collection tool. With the Error Analysis Inventory consisting of Comprehension Scale, Setting Scale, and Articulation Scale, three types of reading levels are measured: anxiety level, instructional level and independent level. The results of the pre-test administered before the start of the summer vacation using this inventory revealed that the students in both groups generally showed poor reading performance and their average reading level was at the "anxiety" level. The post-test administered after the opening of the schools showed that the level of the control group did not change, while the experimental group increased to the "instructional" level. As a result of book reading activities, the reading level scores of the experimental group increased significantly compared to before the intervention, while there was a significant decrease in the control group. Based on these findings, the importance of providing book support to students living in disadvantaged areas to prevent summer reading loss and increasing book reading during the summer is strongly recommended.

Keywords: Reading, Summer Reading Loss, Reading Retardation, Primary School

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Introduction

Reading and writing are among the most important learning experiences for any individual. In addition, reading and writing form the foundation of other types of learning. Therefore, failure in reading and writing may lead to failure at school, and ultimately result in ending up with an unsatisfactory profession. Therefore, it is extremely important to acquire reading and writing skills properly and in a timely manner.

The reading and writing skills are first acquired in the first grade of primary school. In the first grade, children first learn about the sound groups and then how to read them. Gaining fluency in reading and understanding what one reads requires a long time and much effort. By the end of the first grade of primary school, students usually have learned to read and write. However, when the education period is completed, not every student is literate at the same level. Some students read very fluently, while others read slowly and without comprehension. This gap between them is particularly evident in the learners who reside in rural or low-income areas.

For learners who cannot fully acquire reading and writing skills, how to spend the summer vacation is extremely important.

For learners, the summer vacation in Türkiye lasts three months. This long period may lead to reading loss, especially for students who have just started reading and have not yet achieved fluency in reading. Especially for children from low-income families, summer reading loss poses a greater risk.

Summer Reading Loss

Summer reading loss is a common problem particularly among children living in rural areas who are not exposed to books during summer vacation. This problem is more common among children from low-income or immigrant families. Significant differences have been found between the literacy skills of children from low-income families and their middle- and high-income peers (Chatterji, 2006). In low-income families, children are exposed to almost no books during the long summer vacation, which increases the gap between children who have adequate books and resources at home. Indeed, this is an important reason for the low graduation rate and the decrease in future human potential (McGill-Franzen, Ward, & Cahill, 2016). According to Dickinson and Tabors (2001), the retardation in literacy skills in early childhood is significantly related to low academic and reading success in older ages.

This difference in reading skills between the children of low-income families and those of high-income families during the summer vacation is explained by the faucet theory in the literature. Alexander, Entwisle and Olson are the researchers who introduced the faucet theory, whicg states that

books and similar resources can be used by all children when schools are open. During this period, the faucets are on and the resources flow for the children. However, this is not the case during the summer holidays. Schools remain closed during the summer and access to books is limited. In this period when schools are closed, children from low-income families who do not usually have books and similar resources at home experience losses for three months, while children from high-income families continue to learn because they have access to books and similar resources. In other words, when the summer vacation ends, the gap between them becomes wider. This may actually grow up to a few years of achievement gap by the time they graduate from the secondary school (Alexander, Entwisle, & Olson, 2007). According to Borman and Dowling (2006), if economically disadvantaged students cannot catch up with their peers in early grades, a two-year reading achievement gap can be expected in secondary school. According to another study, students from middle-income families tend to increase their reading skills slightly during the summer holidays, while students from low-income families show a significant loss in reading skills, leading to a three-month gap between the two groups when schools open (Cooper et al., 1996). According to Alexander, Entwisle, and Olson (2007), 80% of the difference in achievement between children from low and high socioeconomic status communities is due to summer reading loss.

Very few studies in Türkiye have focused on summer reading loss, and therefore, no measures have been undertaken to prevent summer reading setback. However, in some studies, teachers cautioned that the long summer vacation causes reading loss in students (Arı, 2004; Babayiğit & Erkuş, 2017). Summer reading setback has been on the agenda for many years, especially in the USA and some European countries, and there has been a lot of research on it. For example, students in New York City were found to have summer reading loss in 1983 (Hayes & Grether, 1983). Many subsequent studies have confirmed that students experience summer reading setback (Borman & D'Agostino, 1996; Cooper, Nye, Charlton, Lindsay, & Greathouse, 1996; Entwisle, Alexander, & Olson, 1997; Pedersen, 2012).

Summer Reading Programs

In the USA, summer reading programs have long been implemented to prevent the reading loss in children from low-income families during the summer vacation and to close the gap between them and their peers. So much so that more than 14 million children benefited from the summer program in the USA in 2010 (America After 3 PM, 2010). These programs can be implemented through libraries as well as through schools.

Researchers state that children who read during the summer are less likely to experience reading loss (Heyns, 1987). A study conducted by comparing international test scores in 27 countries determined that a home library is as important as parent education (Evans, Kelley, Sikora, & Treiman,

2010). In addition, the effect of summer school is greater for children who have fewer books at home because each book counts for low-income families where books are rare (Evans, Kelley, Sikora, & Treiman, 2010).

Summer reading programs are designed in various ways. Most of these programs are not teacher-guided but rather encourage voluntary and independent reading, where children are given books to take home (Allington et al., 2010; Kim & Guryan, 2010; White, Kim, Kingston, & Foster, 2014; Wilkins et al., 2012). This type of program is often preferred because of its low cost. In some other programs, some teachers are assigned to work in groups to help children achieve fluent reading, in which students are given books to read, come to school once a week and do reading activities with the guidance of their teacher. According to Kim and Quinn (2013), teacher-oriented reading programs support student development better than those in which students take books home independently.

Whichever type of program is preferred, providing books to low-income families during the summer holidays, especially in rural areas, helps prevent children's reading loss. According to Lindsay (2013), such programs not only prevent retardation in reading, but also contribute to developing a positive attitude towards reading, fluency in reading, more and longer reading, and better reading comprehension (McGill-Franzen & Ward, 2015). Researchers make the following suggestions to increase the effectiveness of summer reading programs:

- Owning a book is more effective than borrowing it. Therefore, if possible, books should be given to children permanently, not on loan.
- Informing and guiding parents about the program increases the effectiveness of the program.
- Guiding teachers in associating books with other literacy activities increases the effectiveness of the program.
- Choosing the books that students will read increases the effect.
- If the program is to be carried out under the guidance of a teacher, the number of student groups should be kept low and each group should not exceed 12 students.

Considering these suggestions will increase the success of a summer reading program to be implemented. Furthermore, the due adaptations should be made by considering the specific conditions and needs in the Turkish context.

Purpose of the Study

No study has been found in Türkiye focusing on summer reading loss and aiming to produce a solution for it. However, primary school teachers in Türkiye, especially in rural areas, frequently observe summer reading loss in their students. So much so that the first few months of the 2nd grade are usually spent with the repetition of reading activities or the efforts to bring the students who regressed in reading to the level at the end of the 1st grade. Therefore, that no scientific studies have

been conducted yet on this problem is a major shortcoming, which teachers often experience. Summer reading loss is not only a problem of Türkiye. Summer reading loss is a common problem in many developed countries such as the USA. Although the international studies on this problem began in the 1960s, the lack of research on it in Türkiye is particularly noteworthy. On the other hand, schools were frequently closed during the Covid-19 pandemic, and students has to attend distance education, which restricted students' access to education, especially in rural areas with limited internet access. In other words, while reading loss was previously limited only to the summer holiday, it went on almost the whole year during the pandemic.

Based on these facts, it is important to conduct a study to determine the current status of summer reading loss in Türkiye, along with a need for research probing for potential solutions for it. As such, the current study aimed to determine whether primary school first grade students experience reading loss during the summer vacation and to find out whether providing book support to disadvantaged students during the summer vacation (book reading activities) is effective in preventing summer reading loss.

Method

Research Design

Conducted to determine whether primary school first grade students experience reading loss during the summer vacation and whether providing book support (book reading activities) during the summer vacation is effective in preventing summer reading loss, this study has a quasi-experimental design with a pre-test post-test control group. While this design provides the researcher with a high statistical power, it allows the findings to be interpreted in a cause-effect relationship (Büyüköztürk, 2019).

Sample

The research was carried out with 26 primary school first grade students in a village primary school in İscehisar district of Afyonkarahisar province of Türkiye. The experimental group consists of 12 students and the control group consists of 14 students. The experimental group voluntarily participated in the program named 'I'm In for Recovery', which started during the summer vacation.

Data Collection Tools

To reveal the reading levels of the students in the study, the Error Analysis Inventory adapted by Akyol (2020) from Haris and Sipay (1990), Ekwall and Shanker (1988) and May (1986) was used. With the inventory, students' reading and reading comprehension levels can be determined. During the implementation of the inventory, the comprehension levels of the readers are determined by the

answers from the questions asked about the text and the word recognition and phonetic mistakes made by the students in the reading aloud part.

Three types of reading levels are determined through the Error Analysis Inventory (Akyol, 2020):

1. Anxiety Level: It shows that the reader makes too many reading errors and understands very little of what s/he reads.

2. Instructional Level: It shows that the student needs the support of a teacher or an adult in reading and comprehension.

3. Independent (Free) Level: It means that the student reads at her/his level and understands what s/he reads without the need for the support of any other person.

The Error Analysis Inventory consists of comprehension scale, articulation scale and setting scale. If the sum of the scores obtained by the student from these scales is below 180, the level of anxiety is in the range of 180-240 points, the education level is at the independent level if it is higher than 240 points.

The text titled "Sunday" in the book "Informal Reading Inventory" written by Karasu, Girgin and Uzuner (2013) was used as the reading text in the Error Analysis Inventory, with the permission of the authors. This text represents the story genre, and consists of 122 words. For the comprehension scale of the inventory, a total of eight questions were prepared, four of which were simple comprehension and four were in-depth comprehension. While most of the questions were taken directly from the questions prepared for the text from the relevant book, a small number of questions were revised and updated.

Data Collection

At the end of the spring semester before the summer vacation began, the reading skills of the 1st grade students were measured using the Error Analysis Inventory. While the experimental group consisting of 12 students was reading books during the summer vacation as part of the 'I'm In for Recovery' program, the control group of 14 students did not participate in the summer reading activities. While the students were reading under the supervision of the teacher during the course, book support was also provided for them to read at home and the books they read were followed up. In the first week when schools opened, students' reading skills were re-measured using the same text and inventory.

Data Analysis

The Error Analysis Inventory was used to measure students' reading skills. To determine the comprehension level the student, simple comprehension questions and deep comprehension questions

about the text were prepared. The total score the student gets is divided by the total score he/she should get, and thus the percentage score is calculated. Scoring is calculated as follows (Akyol, 2020):

For simple comprehension questions:

- "2" for fully answered questions,
- "1" for partly-answered questions, and
- "0" for questions that are not answered.

For in-depth questions:

- "3" for questions answered fully and thoroughly,
- "2" for those which have some shortcomings but give more than half of the expected answer,
- "1" for half of the expected answer,
- "0" point for those that are not answered at all.

In the articulation and setting scale, the words that the student reads incorrectly are recorded, and then the percentile score is calculated by dividing the total score the student gets by the total score he/she should get. The scoring is calculated as follows (Akyol, 2020):

Setting scale scores:

- "0" for Never read
- "1" for The Word Given by The Teacher
- "2" for Not Containing the Same Words/Structures
- "3" for Containing the Same Words/Structures
- "4" for Using the Same Words as the Author.
- "5" for Self correction."

To increase the reliability, the data collected from the students were scored by an expert in this field together with the researchers. The scoring showed that the reading levels of the students determined both by the researchers and the expert were the same.

To determine whether the data collected in the study showed a normal distribution, a normality test was performed with the SPSS program. Since the number of data was less than 30, the Shapiro-Wilk test was performed, and the data were found to be normally distributed before and after the intervention ($p \square 0.05$). Since the distribution of the data was normal, the difference between the groups was analyzed with the independent-samples t-test. Since the normality result of the posttest-pretest difference within the groups did not show normal distribution, the Wilcoxon signed-rank test was performed.

<div align="center">

Results

</div>

Pre-Intervention Results

The Error Analysis Inventory was used to determine the reading skills of the students at the end of the 1st grade. Accordingly, the inventory scores of the students in the experimental and control groups before the intervention are presented in Table 1.

Table 1. The Scores of the Groups before the Intervention

Gruop	No.	Name of Student	Pre-Intervention				
			No. of Word per Minute	Comprehension Scale	Setting Scale	Articulation Scale	Total
Experiement	1	Hatice	23	65	38	78	181
	2	Ayşe	50	40	40	48	128
	3	Fadime	17	55	33	57	145
	4	Emir	16	25	36	56	117
	5	Mert	27	70	52	77	199
	6	Gizem	20	20	44	74	138
	7	Nimet	44	80	50	73	203
	8	İbrahim	55	85	88	77	250
	9	Buse	21	35	45	57	137
	10	Derya	20	40	38	63	141
	11	Hakan	31	40	61	73	174
	12	Tolga	36	55	58	71	184
	-	Mean	30	50,8	48,5	67	166,4
Control	1	Sefa	31	70	42	73	185
	2	Ali	10	20	48	42	110
	3	Seda	44	70	92	80	242
	4	Elif	13	90	40	63	193
	5	Erdem	25	30	55	77	162
	6	Merve	43	50	44	68	162
	7	Volkan	52	75	69	63	207
	8	Arda	26	50	70	54	174
	9	Burcu	33	55	46	68	169
	10	Hilal	18	40	38	57	135
	11	Filiz	43	60	52	74	186
	12	Ahmet	27	40	50	78	168
	13	Kadir	20	35	42	70	147
	14	Mehmet	19	25	33	69	127
	-	Mean	28,8	50,71	51,5	66,8	169

As seen in Table 1, according to the results of the pretest before the summer vacation, the students in the experimental and control groups generally showed poor reading performance and their average reading level was at the "anxiety" level (<180). Before the intervention, the average of the number of words read by the students in both groups per minute and the average of the scores they got from the comprehension, setting and articulation scales were also very close to each other. The independent t-test, which was conducted to determine whether there was a significant difference

between the reading skills of the students in the experimental and control groups before the intervention, is presented in Table 2.

Table 2. Comparison of the Groups before the Intervention

	Group	N	Mean	S	sd	t	p
Pretest	Exp.	12	166,41	38,91	24	-,186	,854
	Control	14	169,0714	33,85			

The t-test analysis showed no significant difference between the reading level scores of the groups before the intervention. Therefore, the groups can be said to be equivalent to each other before the intervention (p>0.05).

Post-Intervention Results

The number of books read by the experimental group and the control group during the intervention process is presented in Table 3.

Table 3. Number of Books that Students Own and Read in the Process

Group	No.	Name of Student	No. of books at home	No. of Books read during the Intervention
Experiement	1	Hatice	3	9
	2	Ayşe	2	15
	3	Fadime	4	6
	4	Emir	2	8
	5	Mert	3	10
	6	Gizem	5	9
	7	Nimet	9	14
	8	İbrahim	11	8
	9	Buse	1	11
	10	Derya	2	6
	11	Hakan	3	9
	12	Tolga	4	7
	-	Mean	4,08	9,3
Control	1	Sefa	2	2
	2	Ali	0	1
	3	Seda	7	2
	4	Elif	5	2
	5	Erdem	1	5
	6	Merve	2	3
	7	Volkan	8	2
	8	Arda	5	2
	9	Burcu	6	3
	10	Hilal	4	1
	11	Filiz	3	1
	12	Ahmet	6	2
	13	Kadir	3	4
	14	Mehmet	1	2
	-	Mean	3,92	2,2

As can be seen in Table 3, the number of books in the homes of the students is quite low (four books on average). This average was determined based on the statements of the students. The number of books read by the students in the experimental group during the intervention was monitored and the students were observed to read an average of 9.3 books in this process. On the other hand, the number of books read by the control group could not be monitored, and student statements were taken as the basis.

The measurement was repeated at the end of the summer holiday, when the schools opened, and the scores of the experimental and control groups are presented in Table 4.

Table 4. Scores of the groups after the intervention

| Group | No. | Name of Student | Post-Intervention | | | | |
			Words Read per Minute	Comprehension Scale	Setting Scale	Articulation Scale	Total
Experimental	1	Hatice	30	90	54	80	224
	2	Ayşe	56	85	63	80	228
	3	Fadime	17	65	48	65	178
	4	Emir	18	40	44	68	152
	5	Mert	29	90	57	74	221
	6	Gizem	32	60	38	70	168
	7	Nimet	54	70	60	86	216
	8	İbrahim	61	85	87	74	246
	9	Buse	29	50	50	63	163
	10	Derya	23	45	43	61	149
	11	Hakan	34	45	66	78	189
	12	Tolga	39	65	60	71	196
		Mean	35,1	65,8	55,8	72,5	194,1
Control	1	Sefa	23	55	41	68	164
	2	Ali	8	20	38	41	99
	3	Seda	51	75	81	76	232
	4	Elif	11	80	44	54	178
	5	Erdem	20	25	60	78	163
	6	Merve	46	45	48	74	167
	7	Volkan	49	65	72	61	198
	8	Arda	28	50	57	72	179
	9	Burcu	30	50	50	66	166
	10	Hilal	18	30	33	60	123
	11	Filiz	47	55	52	75	182
	12	Ahmet	25	35	48	73	156
	13	Kadir	18	35	45	70	150
	14	Mehmet	20	30	34	61	125
		Mean	28,1	46,4	50,2	66,3	163

As can be seen in Table 4, the results of the second measurement performed after the opening of schools show that the control group's level (Anxiety) did not change, while the level of the

experimental group increased to the Instruction level. Another remarkable finding is that while the average score of the control group from the inventory was 169 before the summer holiday, the score decreased to 163 afterwards. The mean score of the experimental group, which was 166.4 before the intervention, increased to 194.1 afterwards. Another finding is the increase in the mean score of the experimental group on the comprehension scale after the intervention. During this period, the mean score of the control group decreased. Again, when the average number of words read per minute was examined, an increase was observed in the experimental group, while the average of the control group did not change compared to before the intervention. The result of the independent t-test, which was conducted to determine whether there was a significant difference between the reading skills of the students in the experimental and control groups after the intervention, is presented in Table 5.

Table 5. Comparison of the groups after the intervention

	Group	N	Mean	S	sd	t	p
Post-test	Exp.	12	194,17	32,59	24	2,412	,024
	Control	14	163	33,06			

The t-test revealed a significant difference in favor of the experimental group between the reading level scores of the groups after the intervention (p<0.05). Wilcoxon Signed Rank Test results for within-group differentiation are presented in Table 6.

Table 6. Within-group differentiation

	Post test – Pre test	N	Rank Mean	Rank Total	z	p
Exp.	Negative Ranks	1	1	1		
	Positive Ranks	11	7	77	-2,981	,003
	No Diff.	0				
Control	Negative Ranks	10	8,75	87,50		
	Positive Ranks	4	4,38	17,50	-2,199	,028
	No Diff.	0				

Considering the differentiation within the group, since the p value (p<.003 and .028) is less than 0.05, there is a significant difference between the scores before and after the intervention for both groups. Thus, while the reading level increased significantly in the experimental group after the intervention, the reading level fell significantly in the control group.

Discussion, Conclusion and Recommendations

Although summer reading loss or retardation continues to be a serious problem frequently encountered by teachers working in disadvantaged areas, the scarcity of studies on summer reading loss in Türkiye, and the lack of any preventive measures are a definite cause for concern. As such, the current study aimed to determine whether first-year students experienced reading loss during the summer holiday and to determine whether providing book support (book reading activities) during this holiday was effective in preventing summer reading loss.

Our results clearly show that first grade students living in a disadvantaged region and who did not participate in reading activities during the summer vacation experienced reading loss. Our literature review revealed that the studies to determine the summer reading loss in Türkiye are quite inadequate Yıldız (2014) found that reading speed of the 4th grade students decreased significantly after the summer holiday compared to the pre-holiday. Comparing public and private school students, Yıldız et al. (2021) examined how the fluent reading skills of students who were in the first grade at outbreak of the Covid-19 pandemic developed during the second grade and whether they had any learning losses. They found that the public school students could reach the reading speed that the private school students had at the beginning of the year only at the end of the year, and there was a one-year difference in reading speed between the two groups. They also determined that public school students' reading errors increased twice as much compared to the pre-pandemic period. These results are also important because they show that socioeconomic level is a determinant variable on reading loss, In some other studies, teachers mentioned that the long summer vacation causes reading loss. Focusing on the concepts of learning, memory and forgetting, Arı (2004) found that the long summer vacation causes learning loss and recommended offering support activities during this period. In their study titled "Problems and solution proposals in the process of primary literacy teaching," Babayiğit and Erkuş (2007) report teachers' observation that their students had forgotten some reading and writing elements during the transition from first grade to second grade, after vacation. International studies also confirm that students experience reading loss during the long summer vacation (Borman & D'Agostino, 1996; Cooper, Nye, Charlton, Lindsay, & Greathouse, 1996; Entwisle, Alexander, & Olson, 1997; Pedersen, 2012).

We found that doing reading activities and providing book support to students during the summer vacation prevented summer reading loss and improved reading skills. That providing book support to disadvantaged students during the summer vacation or summer reading programs prevents reading loss has been demonstrated by many studies (Allington et al., 2010; Borman & Dowling, 2006; Kim & Guryan, 2010; Lindsay, 2013; McDaniel et al., 2017; White, Kim, Kingston, & Foster, 2014; Wilkins et al., 2012). According to Lindsay (2013), summer reading programs are effective in preventing reading loss, in developing a positive attitude towards reading and ensuring fluency in reading. However, such a program is not implemented during the summer vacation in Türkiye. Unfortunately, whether children read or have access to books during their summer vacation is not known. No efforts are made to keep track of students' reading status, and monitoring their progress depends entirely on the individual efforts of the teachers. As such, the program, 'Telafide Ben De Varım - I Am in for the Remedial', which was put into practice during the summer vacation at the end of the 2020-2021 academic year, provided an opportunity for summer reading activities and book reading follow-up. Whereas the reading skills of the students who participated in the program improved, and the students who did not participate in the program experienced reading loss.

Researchers think that summer reading loss may be caused by various factors such as the lack of opportunities like insufficient reading materials at home, absence of literacy-rich activities like using libraries, and being unable to interact with interesting texts (Alexander, Entwisle, & Olson, 2007; Buckingham, Beaman, & Wheldall, 2014; Von Hippel, Workman, & Downey, 2018). For this reason, libraries in developed countries organize summer reading programs and encourage student participation in these programs. Schools can easily assume this role in Türkiye. Especially in disadvantaged areas and rural schools, organizing summer reading programs at a very low cost can be effective in reducing the losses of children with limited access to books. For this, it is necessary to have a library or classroom bookcases, especially in schools in rural areas. However, studies (Dilekçi, 2022) show that one third of the schools in our country do not have a library and that the ones that do are insufficient.

Recommendations

Listed below are some recommendations based on the findings and aimed at increasing the potential benefits of summer reading activities:

- Children's access to books should be increased in disadvantaged regions.
- Summer reading programs should be implemented especially in disadvantaged regions.
- It would be helpful to include different types of books (informative, poetry) along with stories in summer reading activities.
- If students are allowed to select the books they will read they will be more interested in reading.
- If the program is to be implemented under the guidance of a teacher, it will help to keep the number of students in the groups low.
- Different reading techniques (repeated reading, paired reading, choral reading, etc.) can be included in summer reading activities.

Policy Implications

Summer reading loss is a common and serious problem experienced by children who do not read enough books during their summer holiday when schools are closed. This problem is common especially among students who live in disadvantaged areas and are just learning to read. This loss of reading skills in the early years tends to continue and becomes increasingly difficult to compensate for in later years. Therefore, efforts to prevent reading loss are crucial. This research has determined that implementing summer reading programs and providing book support to students in rural areas are effective in reducing reading losses. This study is significant in providing policymakers with an effective and cost-efficient solution to address summer reading loss. In recent years, in an attempt to compensate for the losses during the Covid-19 pandemic, various courses have been offered during the summer vacation for certain grade levels in our country. However, upon examining these courses,

no program specifically aimed at preventing reading loss was found. This research has shown that implementing book reading programs during the summer vacation for primary school students and providing book support to students in rural areas can be beneficial in reducing reading losses. Therefore, this study can contribute to policymakers in preventing potential learning losses in later years by addressing reading losses in the early years.

Conflict of Interest

No potential conflict of interest was declared by the author.

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Credit Author Statement

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Ethical Statement

Ethics committee approval within the scope of the research has been obtained from the Afyon Kocatepe University ethics committee of scientific research with the decision numbered 2021/293 on 25.06.2021.

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What Role Do Visions About Future and Vocational Outcome Expectations Have on Proactive Career Behaviors? Examining a Mediation Model on University Students

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Abstract

Adapting to the rapidly changing business and working world today is a behavior that every individual needs, no matter what stage of their career. One of the important variables that make it easier for individuals to adapt to these changes is proactive career behaviors. Addressing the roles of the variables that strengthen proactive career behaviors within a certain approach (i.e., Social Cognitive Career Theory) will produce results that will contribute to adapting to the change that the individual needs. Therefore, the purpose of this research is to investigate the mediating role of vocational outcome expectations in the relationship between the visions about future (hope, optimism, pessimism) and proactive career behaviors. 442 university students participated in the research. The ages of the participants vary between 18-27. The structural equation modeling method was used in the analysis of the data. Results indicated that visions about future and vocational outcome expectations were positively associated with proactive career behaviors. The results also indicated that vocational outcome expectations have been shown to have a partial mediating role in the relationship between the visions about future and proactive career behaviors.

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Introduction

Due to the rapid technology developing in the 21st century, there is a rapid change in the business and working world. This change is transforming many business environments, required employee qualifications, and business structures. In such an environment, the world of work is unstable and volatile (Akkermans et al., 2013; Direnzo & Greenhaus, 2011). An unstable and volatile environment decreases job security for employees (Ginevra et al., 2020). It is considered important for individuals to be more active and self-directed in their careers in order to increase job security and reduce the disadvantages of an unstable and volatile work environment (Fay & Kamps, 2006; Ginevra et al., 2018).

One of the active and self-directed attributes in career development and transitions is proactive career behavior, an important career behavior. Proactive career behaviors have recently become one of the most important concepts needed in the uncertain world of work. Proactive career behavior is 'the degree to which somebody is proactively developing his/her career as expressed by diverse career behaviors.' (Hirschi et al., 2014). Descriptions of proactive career behaviors indicate that proactive career behaviors are comprised of diverse career behaviors (Korkmaz, 2023). It includes career behaviors such as career planning, career exploration, networking, career initiative, career consultation, and skill development (Hirschi & Freund, 2014). Proactive career behaviors are a concept that facilitates the individual to successfully cope with career problems (Jackson & Tomlinson, 2019) and is therefore considered an important key to a successful career (Herrmann et al., 2015).

Visions about Future: Relation to Proactive Career Behaviors

Another important basic structure that has an impact on the career development of individuals are visions about future. It reflects the individual's positive view of the future. This positive view consists of hope, optimism, and pessimism. In other words, visions about future consist of hope, optimism, and pessimism (Ginevra et al., 2017). It is suggested that positive psychology variables may play an important role in the career development of individuals (Vela et al., 2015a). Optimism reflects strong positive expectations for the future, hope includes the motivation to achieve future goals, and pessimism expresses negative expectations that bad things will happen in the future (Carver et al., 2010; Goleman, 20005; Snyder, 2002). High levels of optimism, and hope and low levels of pessimism reflect individuals' positive orientation toward the future (Korkmaz & Doganulku, 2022). Optimism is an important concept associated with positive career life (Akca et al., 2018). It can be said that optimistic individuals will be more likely to engage in proactive behaviors because they make more effort than pessimistic individuals (Ginevra et al., 2017). Having positive expectations for the future can contribute to the individual's planning for the future and motivation to act within the plan (Hirschi, 2014; Snyder, 2002). Hope is known as a promoter of proactive career behaviors

(Lopes & Cunha, 2008). Thus, it can be said that individuals with high hope levels will tend to act proactively. It has been stated that higher levels of visions about future are associated with the behavior of individuals (Ginevra et al., 2017). Considering the relevant literature, it can be said that increasing visions about future will increase the tendency of the individual to engage in proactive career behaviors. Accordingly, the following hypothesis has been developed.

H₁: Visions about future will positively predict proactive career behaviors.

Vocational Outcome Expectations: Mediating Role in the Relationship between Visions about Future and Proactive Career Behaviors

The Social Cognitive Career Theory (SCCT) is an approach that emphasizes the capacity of individuals to direct their career behaviors. It was developed by Lent and colleagues (1994) based on Bandura's (1986) Social Cognitive Theory. In this approach, the individual's beliefs about herself/himself and their environment play a key role in her career (Lent et al., 2000; 2002). One of these beliefs is outcome expectations. Outcome expectations are 'beliefs in the consequences of performing given behaviors.' (Betz & Voyten, 1997; Niles & Harris-Bowlsbey, 2021) and cognitive motivator that enables the goal, action, and outcome process (Lent et al., 2017). It is one of the important blocks on which an individual builds their career and represents the key mechanism that provides individuals' personal control behaviors (Ozyurek, 2018). More specifically, the concept of vocational outcome expectation, reflecting outcome expectations, is defined as 'beliefs about the long-term consequences of success that can be achieved as a result of certain educational or career decision-making behaviors' (Betz & Voyten, 1997; Fouad & Guillen, 2006). It is considered important for individuals to have positive vocational outcome expectations for a successful career in the future (Baglama & Uzunboylu, 2017; Yeh & Borrero, 2012).

Outcome expectations are directly related to individuals' personal perceptions of the results obtained from their past attempts (Brown & Lent, 1996). Considering that vocational outcome expectations are an individual's beliefs about positive and negative outcomes in their vocation in the future (Lent, 2005), it can be said that positive or negative tendencies toward the future (Ginevra et al., 2017) will be related to vocational outcome expectations. SCCT emphasizes that cognitions are effective in active behaviors in the career development of individuals. Individuals can spend more time on activities that they think will eventually produce positive and desired results (Bandura, 2001). Strong outcome expectations encourage an individual's goal-oriented behavior (Adachi, 2004; Betz & Voyten, 1997). Vocational outcome expectations are considered as imagining career behaviors that can be beneficial for individuals' subsequent career (Betz & Voyten, 2017). It is stated that vocational outcome expectations can push the individual to have high motivation in terms of career behaviors or to avoid career behaviors. Individuals with strong vocational outcome expectations show more

interest in vocational activities. Therefore, the role of vocational outcome expectations in realizing career behaviors is crucial (Baglama & Uzunboylu, 2017; Bozgeyikli, 2005; Ozyurek, 2018). Considering the role of professional outcome expectations in motivating behavior, it can be said that the expectations of university students from the outcomes of the programs they have chosen will have a directing effect on many career behaviors in their university life. Individuals who think that the program they have chosen will bring positive results can increase their vocational development behaviors. Conversely, individuals can reduce their behaviors that will increase their vocational development.

Outcome expectations can be obtained by observing situations and events in the individual's environment (Bandura, 1986). Individuals take actions that they perceive will produce positive results (Bandura, 2001). Individuals strengthen their response patterns in order to achieve positive results (Bandura, 1977). SCCT hypothesizes that personal factors influence the career behaviors (Lent et al., 2002). Outcome expectations, which are personal beliefs about the consequences or situations of performing certain behaviors, are a concept that is fed by the individual's own results (Ozyurek, 2018). For this reason, it can be said that the levels of visions about future such as hope, optimism, and pessimism that an individual obtains from some personal outcomes can predict vocational outcome expectations. On the other hand, individuals are more interested in activities that they believe will yield valuable results as a result (Bandura, 2001). Therefore, this situation shows that having a positive approach toward the future will strengthen the expectation that positive results will be obtained in the future, and this will lead the individual to the behavior that will achieve positive results. In other words, it can be said that having a positive approach towards the future (i.e., visions about future) will support thinking that positive results will be achieved in the future (i.e., vocational outcome expectations) and this will also support the individual to act for positive results (i. e., proactive career behaviors). Accordingly, the following hypothesis has been developed.

H_2: Vocational outcome expectations mediates the relationship between visions about future and proactive career behaviors.

The Present Study

In terms of academic, professional, social, and personal areas, the university period is an important developmental period for the career of the individual (Newman & Newman, 2017). University years are stated by career theorists as the years when individuals tend to focus more on their vocational plans (Kuzgun, 2009). It is an important turning point in terms of being the last stage before individuals enter the vocation and a period in which vocational competencies are acquired (Yilmaz et al., 2020). Considering the characteristics of the period, it is seen that university students collect information about their fields of study, establish a connection between themselves and their

fields of study, and make a series of decisions about their careers by conducting career research. In this respect, this period is a critical period that requires proactive career behaviors (Rogers et al., 2008). Therefore, in this period, some tasks that can be described as proactive career behaviors such as getting to know the business world and oneself, evaluating their own characteristics, and creating a career plan can be included in the career development needs of university students (Yerin-Guneri et al., 2016). For this reason, it can be said that examining proactive career behaviors and revealing important concepts related to these behaviors can make important contributions to understanding and meeting the career development needs of university students.

Vocational outcome expectations of university students can be considered as an important concept in terms of their lives. Studies emphasize that vocational outcome expectations are an important concept that predicts university students' life satisfaction (Yilmaz et al., 2020). Therefore, identifying the antecedents of vocational outcome expectations and the variables it predicts may be important in addressing the lives and careers of university students. It is emphasized that it is valuable to examine the role of outcome expectations in predicting career behaviors (Isik, 2013). In addition, it is stated that vocational outcome expectations have not been adequately researched and more research is needed on this (Sari et al., 2017). Lent et al. (2017) noted that very few studies have focused on the origins of vocational outcome expectations. Therefore, this study is important in terms of contributing to the revealing of the origins of vocational outcome expectations. When the relevant literature is examined, it is seen that the studies examining the concepts of vocational outcome expectations and positive psychology are very limited (i.e., Vela et al., 2019). At the same time, studies examining the relationship between vocational outcome expectations and career-important behaviors such as proactive career behaviors have not been found. For this reason, it can be said that both revealing the relationship of vocational outcome expectations with these behaviors and investigating its role in the relationship between these variables are important in terms of the results to be revealed. It is expected that the findings to be obtained will reveal important results in terms of SCCT, positive psychology and career development theories.

Korkmaz et al. (2020) emphasized the need to understand the relationship between proactive career behaviors and cognitive and emotional variables. In addition, Korkmaz (2023) suggested that mediator variables including career beliefs are needed for a deeper understanding of the relationships between visions about future and proactive career behaviors. On the other hand, it is stated that there is a need for research on potential predictors of vocational outcome expectation (Isik, 2013). In this study, besides revealing potential predictors of vocational outcome expectations, it is thought that examining the potential mediation of vocational outcome expectations in the relationship between visions about future and proactive career behavior will contribute to the validity of SCCT.

This study is structured in line with the theoretical basis of SCT proposed by Bandura (1997; 2001) and SCCT extended by Lent et al (1994; 2002) in the career field. The research model prepared in the current study was created in this direction. Consistent with the theoretical basis in the current study (Lent et al., 1994), visions about future represent the individual input variable as the predictor variable, vocational outcome expectations represent the mediator variable, and proactive career behaviors represent the predicted variable. Therefore, the aim of this study is to examine the mediating role of a cognitive variable, vocational outcome expectations, in the relationship between visions about future and proactive career behaviors. For this purpose, the research model presented below was tested in line with the relevant hypotheses (H_1, H_2).
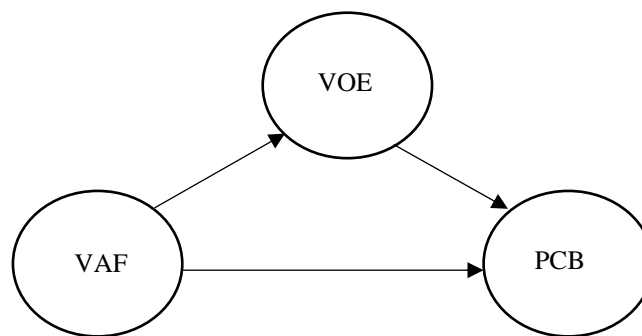
Figure 1. Research Model

Method

Participants

The study group of the research consists of 442 university students, 285 female (64.48%) and 158 male (35.52%). The ages of the university students ranged from 18 to 27 (Mean = 21.14, SD = 1.86). The grade levels of the university students are as follows: (n = 133, 19%) first grade, second grade, (n = 89, 13.2%), third grade (n = 130, 19.2%), and fourth grade (n = 90, 13.3%). Considering the perceived socioeconomic levels of the university students participating in the research, 12 (2.7%) were very low, 46 (10.4%) low, 109 (24.7%) moderate, 109 (24.7%) good and 166 (37.6%) very good.

Data Collection Tools

Vocational Outcome Expectation (VOE)

McWhirter et al. (2000) developed the VOE was adapted to Turkish by Isik (2010). The VOE assess individuals' expectations regarding their occupation, such as status, earnings, prestige, and productivity. The scale consists of 10 items and one dimension. The sample item is 'I will be successful in my chosen career/occupation'. The VOE is a five-point Likert type scale (1: Never agree

to 5: Totally agree). In the study of adapting the scale to Turkish, a positive and significant relationship was obtained between career self-efficacy and the VOE ($r = .59$, $p<.01$). The goodness-of-fit values for construct validity are as follows: $\chi^2= 79.03$, df= 54, p<.01, $\chi^2/df= 1.46$; GFI= .92; CFI= .96; RMSEA= .054; and SRMR= .053. The internal consistency coefficient of the VOE calculated on the data collected in the current study is at a sufficient level (Cronbach Alpha= .92).

Career Engagement Scale (CES)

Hirschi et al. (2014) developed the CES was adapted to Turkish by Korkmaz et al. (2020). The CES was developed to evaluate the career proactive behaviors of individuals and consists of a single dimension and 9 items. The sample item is '...actively sought to design your professional future.'. The CES is a five-point Likert type scale (1: Almost never *to* 5: Very often). In the adapting study, the Cronbach Alpha internal consistency coefficient is .88. The goodness-of-fit values for construct validity are as follows: $\chi^2= 118.117$, df= 24, p<.001; CFI= .95; TLI= .93; RMSEA= .09 (%90 CI= 07. *to* .11); SRMR= .06 The correlation between total scale scores as a result of test-retesting is moderate and meaningful ($r= .67$, $p<.001$). The item-total correlations of the CES vary between .49 and .80. In addition, the CES has positive and moderate relations with career exploration, career planning, and career decision self-efficacy. The internal consistency coefficient of the CES calculated on the data collected in the current study is at a sufficient level (Cronbach Alpha= .91).

Visions About Future Scale (VAFS)

Ginevra et al. (2017) developed the VAFS adapted to Turkish by Akca et al. (2020). The VAFS was developed to evaluate the feelings and thoughts of individuals about their future. The scale consists of three dimensions as optimism, pessimism, and hope and a total of 18 items. The sample item is 'In the future I will work with people that will appreciate me very much.'. In the adapting study, the Cronbach Alpha internal consistency coefficient is .81. The goodness-of-fit values for construct validity are as follows: $\chi^2= 278.20$, df= 132, $\chi^2/df= 2.11$; RMSEA= .06; CFI= .91; GFI= .92; TLI= .90. The item-total correlations of the CES vary between .39 and .67. The VAFS is a five-point Likert type scale (1: It does not describe me at all *to* 5: It describes me very well). The internal consistency coefficients of the VAFS calculated on the data collected in the current study were calculated as .88 for the total score, .89 for the optimism sub-dimension, .85 for the pessimism sub-dimension, and .91 for the hope sub-dimension.

Analysis of the Data

First, the descriptive statistics (mean, standard deviation, kurtosis, and skewness coefficients) were calculated in the study. In addition, the reliability of the data was examined with the Cronbach Alpha internal consistency coefficient. On the other hand, Pearson Correlation Coefficient was calculated to examine the relationships between the variables to be included in the structural equation

model. The mediating role of vocational outcome expectations in the relationship between visions about future and proactive career behaviors was analyzed using the structural equation method. The results of the structural equation model were evaluated according to the model fit index (χ^2/df, RMSEA, CFI, IFI, TLI, NFI). While examining the structural equation model goodness of fit values, χ^2/df < 5; GFI, NFI, TLI, CFI > .90; RMSEA < .10 values were taken as basis for good fit (Hu & Bentler, 1999). The bootstrap 5000 resampling method was used to determine whether the effect obtained in the mediation analysis was significant or not. For the indirect effect obtained as a result of the Bootstrap analysis to be significant, the criterion that the calculated confidence intervals do not cover zero was considered (Hayes, 2013). The data of the research were analyzed using related statistical programs.

Ethical Statement

Informed consent for participation was obtained before the completion of the survey. All procedures in the current study involving human participants were conducted in accordance with the ethical standards of the 1975 Helsinki Declaration. In addition, before the current research was conducted, the necessary ethical approval was obtained from the Social and Human Sciences Ethics Committee of Tokat Gaziosmapasa University (Date-Decision no: 07.12.2022-01-56).

Results

Descriptive Statistics Findings

The descriptive statistical findings of the variables included in the structural equation analysis are presented in Table 1.

Table 1. Descriptive Statistics and Correlation Coefficient Findings

Variables	N	x̄	SD	Proactive Career Behaviors	Visions About Future	Skewness	Kurtosis
Proactive Career Behaviors	442	32.87	7.13			-.514	.203
Visions About Future	442	68.71	13.35	.51**		-.957	.877
Vocational Outcome Expectations	442	39.28	6.34	.60**	.71**	-.837	1.41

*p<.01

When Table 1 is examined, proactive career behaviors with visions about future (r =.51; p<.01), proactive career behaviors with vocational outcome expectations (r =.60; p<.01), visions about future with vocational outcome expectations (r =. 71; p<.01) there is a significant positive correlation. In addition, the coefficients of kurtosis and skewness of the data are between the recommended limits (-1.5 and +1.5) for the normal distribution (Tabachnick & Fidell, 2001).

Mediation Analysis Findings

The current study examined the mediating role of vocational outcome expectations in the relationship between visions about future and proactive career behaviors. Figure 1 demonstrates the path diagram of the structural equation modeling. The model fit indices obtained as a result of the analysis show that the tested model has good fit values [χ^2 = 695.316, df = 246, p<.001, χ^2/df = 2.82; TLI = .92; IFI = .93; NFI = .90; CFI = .93; RMSEA = .064 (90% CI = .059 - .070)].

***p<.001*
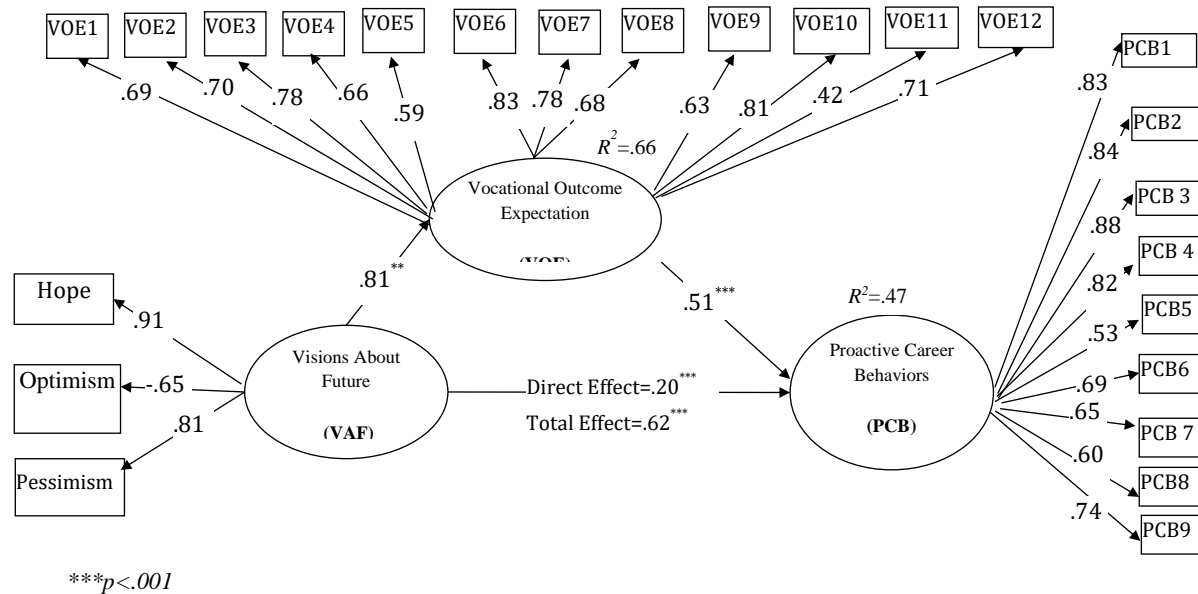
Figure 1. Path Diagram Regarding the Mediator Role of Vocational Outcome Expectations in the Relationship Between Visions about Future and Proactive Career Behavior

The structural equation modeling analysis showed that visions about future positively predicted the vocational outcome expectations (β = .81, p<.001). In addition, vocational outcome expectations were found to positively predict proactive career behaviors (β = .51, p<.001). On the other hand, vocational outcome expectations were found to have a significant mediating role in the relationship between visions about future and proactive career behaviors. Bootstrap confidence intervals were calculated to assess whether the mediating effect was significant. The confidence intervals obtained did not include zero, which showed that the vocational outcome expectations had a significant mediating role [β = .42, BC-Bias 95% lower-bound = .258, upper-bound = .562]. The results obtained in the structural equation modeling analysis are presented in the Table 2.

Table 2. Mediation Analysis Findings

Pathway	Coefficient	Confidence Interval (CI) (Bias%95)		R^2
		Lower-bound	Upper-bound	
Total effect				
VAF→PCB	.62***	.540	.699	
Direct effect				
VAF → PCB	.20***	.041	.394	
VAF →VOE	.81***	.757	.865	.66
VOE → PCB	.51***	.338	.763	
Indirect effect				
VAF → VOE → PCB	.42***	.258	.562	.47

***p<.001; N = 367.

Note: VAF: Visions About Future; PCB: Proactive Career Behaviors; VOE: Vocational Outcome Expectations

Discussion

The aim of the current study was to examine the relationships between visions about future, vocational outcome expectations, and proactive career behaviors in the context of the relationships suggested in the SCCT (Lent et al., 1994). The results indicated that visions about future and vocational outcome expectations predicted proactive career behaviors. It was also found that vocational outcome expectations were a partial mediator in the relationship between visions about future and proactive career behaviors.

One finding of the current study was that visions about future predicted proactive career behaviors positively. Therefore, H_1 hypothesis was accepted. According to this result, as the visions about future levels of individuals increase, their tendency to have proactive career behaviors increases. Considering that the visions about future reflect the positive orientation towards the future, it can be said that it may has a role in activating the proactive career behaviors that individuals will use to build their future (Ginevra et al., 2017; Hirschi, 2014). When the literature on the relationship between visions about future and proactive career behaviors is examined, it is seen that there are limited studies. In studies where there are findings on the relationship between visions about future and proactive career behaviors, it has been found that visions about future predicts proactive career behavior positively (e.g., Doganulku, 2022; Doganulku & Guneslice, 2022; Korkmaz, 2023). In addition to these studies, it is seen that variables such as hope and optimism, which reflect visions about future, are associated with important career behaviors and characteristics such as career adaptability (Bolukbasi & Kirdok, 2019; Buyukgoze-Kavas, 2014; Korkmaz & Cenkseven Onder, 2019; Santilli et al., 2017), career exploration (Hirschi et al., 2015), and career planning (Patton et al., 2004). Thus, results from the literature support the findings of the current study.

Another finding of the study was that vocational outcome expectations had a partial mediating role in the relationship between visions about future and proactive career behaviors. The obtained findings support the H_2 hypothesis. This finding of the study showed that individuals can act more actively about their careers with the increase in the idea that they can achieve positive and desired results. This suggests that individuals have more proactive career behaviors when they perceive higher levels of visions about future and vocational outcome expectations.

Although the place of visions about future and vocational outcome expectations is important for career counseling, studies dealing with the relationship between these two concepts have not been found. The finding obtained in the study is new for the career counseling literature. In the relevant literature, it is suggested that the results obtained by individuals from their past attempts are related to their outcome expectations (Brown & Lent, 1996). From this point of view, it can be said that orientations such as hope, optimism, and pessimism that individuals derive from life outcomes are related to vocational outcome expectations. It is possible to come across studies that personal sources such as visions about future explain vocational outcome expectations in the related literature. For example, in his study with university students, Isik (2013) examined the relationship between social support, which is an environmental factor, and locus of control, which is a personal source and vocational outcome expectations. In this study, a relationship was obtained between locus of control, which is a personal variable, and vocational outcome expectations, which supports the findings of the current study. In addition, Sari et al. (2017) found that personal resources such as self-transcendence, self-consciousness, and self-control predict vocational outcome expectations in university students. Accordingly, the findings of the current study showed that visions about future may be one of the personal resources that affect the development of vocational outcome expectations (Lent et al., 2004). On the other hand, Gurpinar et al.'s (2021) study supported the finding of the current study between vocational outcome expectations and visions about future. In this study, a negative relationship was obtained between career stress and vocational outcome expectations. In addition, career stress negatively predicted vocational outcome expectations. Similarly, in the study conducted by Kim and Lee (2019), a negative relationship was obtained between career stress and vocational outcome expectations. It is seen that career stress caused by not knowing exactly what individuals will do in the future (Choi et al., 2011) affects vocational outcome expectations. Similarly, in a study conducted by Gonulluoglu and Cakmak (2022) on university students, the relationship between career anxiety reflecting individuals' negative tendencies towards the future and vocational outcome expectations was examined. The findings showed that there is a negative relationship between career anxiety and vocational outcome expectations. Finally, Vela et al. (2019) examined the predictability of positive psychological variables on vocational outcome expectations in their study on university students. In this study, it was found that hope predicted vocational outcome expectations positively, as well as other positive psychology variables (i.e., gratitude, and meaning in life). As a result, it is seen that the

positive relations between individuals' opinions that positive things will happen in the future (i.e., visions about future) and vocational outcome expectations are consistent with the literature. Therefore, the individual's positive orientation towards the future (higher hope, and optimism and lower pessimism) can be considered as an important personal resource in determining vocational outcome expectations.

It is possible to come across the literature and the results of the studies that show that vocational outcome expectations are related to the behavior of the individual. However, no study has been found on the predictor of vocational outcome expectations to proactive career behaviors. When the relevant literature is examined, the importance of outcome expectations in revealing behavior is emphasized (Adachi, 2004). It is argued that high outcome expectations in the individual positively affect the individual's behavioral performance (Schaub & Tokar, 2005). According to Bandura (1989), outcome expectations can contribute to behaviors. Therefore, it can be said that the finding of vocational outcome expectations predicting proactive career behaviors is consistent with Bandura's (2001) view that individuals who think that they can achieve positive and desired results will spend more time on activities they think. Studies in the literature also support this finding of the current study. For example, Domene et al. (2011) revealed that the motivation (e. g., academic motivation), which is the basis of behavior, is affected by outcome expectations (e. g., career outcome expectation). Betz and Voyten (1997) in their study on university students revealed that vocational outcome expectations are the most important predictors of career research behaviors. In addition, Patton et al. (2004) found that vocational outcome expectations are a predictor of career planning and career exploration behaviors that reflect proactive career behaviors. As a result, the findings obtained from this study show that the higher the individual's vocational outcome expectations, the closer the individual is to exhibiting proactive career behaviors.

In the literature, it is stated that vocational outcome expectations, one of the concepts of positive outcomes, and hope for the future is related to career behaviors (Vela et al., 2019). According to the 'model of the person, contextual, and experiential factors', personal inputs affect outcome expectations as a result of learning experiences, and outcome expectations lead to choose actions (Lent et al., 1994). When evaluated in terms of this model, the findings of the current study strengthen that visions about the future perform the functions of personal inputs and proactive career behaviors perform choice actions in the model. Therefore, the findings showed that having a positive attitude toward the future increases vocational outcome expectations, and this increase contributes to individuals' participation in proactive career behaviors. It is seen that this result is consistent with the conceptual model of SCCT (Lent et al., 1994). In this conceptual model, it is seen that learning experiences (i.e., visions about future) influence outcome expectations (i.e., vocational outcome expectations), and outcome expectations influence related behaviors (i.e., proactive career behaviors).

SCCT is an approach that emphasizes the capacity of individuals to direct career behaviors (Lent et al., 1994). The findings of the current study revealed important results that contribute to the theoretical claims of SCCT. The findings obtained from the current study supported the claim that outcome expectations are cognitive motivators that enable the goal, action, and outcome process (Lent et al., 2017). In addition, the findings supported the role of vocational outcome expectations in motivating behavior and extended this motivating state to proactive career behaviors (Bandura, 2001; Ozyurek, 2018).

Recommendations and Limitations

Based on the findings of the current study, some recommendations can be made for implementation. First, the levels of hope, optimism, and pessimism, which are the future orientations, can be addressed in the proactive behavior of individuals in the career counseling offered. These variables can be emphasized in increasing the proactive career behaviors of individuals. In addition, in order to increase the effectiveness of this relationship, individuals' beliefs about vocational outcome expectations can be addressed. Individuals' proactive career behaviors can be made stronger by working on negative vocational outcome expectations. Intervention programs involving visions about future and vocational outcome expectations can also be prepared in career intervention studies to increase proactive career behaviors in university students. The validity of the findings obtained from the current cross-sectional study can be tested by examining the effectiveness of these intervention programs. Thus, results that will increase the validity of the cause-effect relationships between visions about future, vocational outcome expectations, and proactive career behaviors can be obtained.

Experimental studies have shown that vocational outcome expectations can be increased (Diegelman & Subich, 2001; Isik, 2010; Eskisu et al., 2020). It is stated that the use of the concepts related to vocational outcome expectations in career intervention studies to be carried out to strengthen vocational outcome expectations in the future will be beneficial in career interventions to be prepared (Isik, 2011). For this reason, vocational outcome expectations can be strengthened by including visions about the future in career interventions based on SCCT. In addition, the validity of the results of the current study can be examined by testing the effectiveness of the developed programs.

The results obtained from the current study were obtained from university students. Similar research models can be tested in different groups in future studies. For example, the current study's research model can be examined in job seekers, career transitions, or employees. Thus, the generalizability of the results obtained from the current study to other groups can be tested. Proven evidence can be used to reinforce individuals' vocational outcome expectations and proactive career behaviors. In addition, the models to be examined in future studies can be expanded within the scope

of SCCT. For example, serial mediation analysis findings can be examined by testing a research model that includes self-efficacy expectations.

Policy Implications

It can be said that preparation for business and working life has become more important in the uncertain labor market that has emerged with rapid technological changes. In such an environment, it becomes more important to focus on the self-directed career characteristics of the individual. The university education period is a critical period in terms of acquiring these characteristics (Rogers et al., 2008). For this reason, while determining higher education policies and strategies, considering policies focusing on individuals' self-directed career characteristics and prioritizing their development will contribute to individuals' success in the uncertain labor market. The 2023 Education Vision Document of the Turkish Ministry of Education (2018) also supports this implication. In this vision document, it is stated that the main purpose of the Turkish Ministry of Education is to raise individuals equipped with the skills of the age and the future. In this direction, it can be said that it will be important to prioritize education policies and strategies in higher education for the development of self-directed career features such as visions about the future, vocational outcome expectations, and proactive career behaviors.

Conflict of Interest

No potential conflict of interest was declared by the authors.

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Credit Author Statement

Author 1: Conceptualization and Methodology, Writing- Original draft preparation, Visualization, Investigation, Data Curation, Formal Analysis, Writing - Review & Editing.

Author 2: Conceptualization and Methodology, Writing - Original draft preparation, Visualization, Investigation, Data Curation, Formal Analysis, Writing - Review & Editing.

Ethical Statement

Informed consent for participation was obtained before the completion of the survey. All procedures in the current study involving human participants were conducted in accordance with the ethical standards of the 1975 Helsinki Declaration. In addition, before the current research was conducted, the necessary ethical approval was obtained from the Social and Human Sciences Ethics Committee of Tokat Gaziosmapasa University (Date-Decision no: 07.12.2022-01-56).

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Development Study of The Inventory of Orientations in Curriculum Theories (IOCT) (From Qualitative Cluster Analysis to Quantitative Confirmatory Factor Analysis) *

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Abstract

In this research, teachers' orientations in curriculum theories were identified via an assessment tool which was grounded by Marsh and Willis (2003) where curriculum theorists were classified. "The Inventory of Orientations in Curriculum Theories" was developed to identify the teachers' orientations in curriculum theories in this research. The item pool for the inventory was obtained through a qualitative clustering analysis applied on the studies in the related literature. Later, Exploratory Factor Analysis and Confirmatory Factor Analysis were applied separately on each scale of the inventory. As the result of this process, "the Inventory of Orientations in Curriculum Theories" was developed which consisted of "the Scale of Orientations in Prescriptive Curriculum Theories", "the Scale of Orientations in Descriptive Curriculum Theories" and "the Scale of Orientations in Critical-Exploratory Curriculum Theories". In this context, a new culture-specific measurement tool has been developed that aims to determine the interaction between scientists, specialists and teachers in the field, in other words, theorists and practitioners. The IOCT inventory consists of three scales: OSPCT, OSDCT and OSCECT. OSPCT consists of 27 items, OSDCT consists of 18 items and OSCECT consists of 19 items. The highest score that can be obtained from OSPCT is 135 and the lowest 27; The highest score that can be obtained from OSDCT is 90 and the lowest is 18; the highest score that can be obtained from OSCECT is 95 and the lowest is 19. Thus, it can be determined to what extent a teacher has a prescriptive, descriptive or critical-explanatory curriculum theory orientation.

Keywords: Curriculum Theories, Teachers' Orientations in Curriculum Theories, The Inventory of Orientations in Curriculum Theories

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Introduction

Curriculum orientation determines how teachers view the curricula, their dimensions and how they utilize them. As for the orientation of curriculum theories, it specifies how teachers explain and apply the curricula and their dimensions based upon the theories developed by curriculum specialists. In this context, the concept of theory can be examined in terms of its function. It is used to describe, describe, explain, and predict theories, as well as to offer suggestions for structures, relationships, and outcomes (Huenecke, 1982). Theories are part of educators' thinking, and these theories shape the theoretical and philosophical foundations of educators' actions (Ornstein and Hunkins, 1998). In other words, theories guide the thoughts of educators (Henson, 1995) and determine the activities they perform (Miller, 2011).

Studies show that the theories adopted by teachers (Chant, 2002; Cornett, 1990) and their beliefs about curriculum (Stipek, Givvin, Salmon, and MacGyvers, 2001; Peacock, 2001) affect the decisions they make in the classroom and the teaching they perform. Because teachers' beliefs about what is right or wrong in the education/teaching process is one of the most important factors that determine which aspects of the curriculum and with what intensity they will emphasize (Pajares , 1992; Hasweh , 2003).

Curriculum orientation includes the educational paths that teachers develop and put into practice, based on all their personal beliefs and value judgments (Jax, 1986). Cheung (2000), on the other hand, states that curriculum orientations are determined by the backgrounds, experiences, culture and priorities that teachers bring to the school, and they consist of different beliefs about what schools should do and how students should learn. In other words, curriculum orientation determines the point of view of teachers regarding the curriculum, such as goals, student-teacher roles, content, activities performed, and expected learning outcomes, and how they will use them.

Classifications aiming to explain the orientation of curriculum theories were carried out. According to McNeil (1977), there are four different curriculum orientations. These orientations are; humanistic, social reconstructionist, technological and academic orientations. Another known classification of orientation in curriculum theories is Eisner and Vallance (1974)' s five basic orientation classifications. These; "academic", "social restructuring", "cognitive", "humanitarian" and "technological" orientations (Jenkins, 2009; Cheung and Wong, 2002; Crummey, 2007). Ornstein and Hunkins (1998) classified orientation of curriculum theories into two categories as "technical and scientific" and "technical and non-scientific". In the category of "technical and scientific", "behavioral", "managerial", "technological (system)" and "academic" orientations; In the category of "technical and non-scientific", there are "humanist" and "social restructuring " orientations.

For this purpose, it is seen in the literature that measurement tools aiming to determine the teacher's orientation of curriculum theories have been developed. Curriculum Orientation Inventory , first developed by Cheung (2000) and later adapted by Cheung and Wong (2002). COI 5 dimensions were determined as " academic, cognitive processes, technological, humanistic and social restructuring ". Later COI, modified by Rice and Mahlios (2003). In the developed measurement tool, it was stated that when applied in different cultures, some items shifted between dimensions (Jenkins , 2009). Among the reasons for these psychometric problems, it was stated that individuals did not include themselves in only one group or that the theories could not be completely separated from each other. In this context, teachers' theoretical orientations can be re-examined with the help of measurement tools to be developed within the framework of different classifications.

Philosophical and Theoretical Origins of Inventory Of Orientations In Curriculum Theories (IOCT)

Marsh and Willis (2003) used the groupings of Macdonald (1971) and Jackson (1992) while classifying the theorists in the field of curriculums. Accordingly, McDonald (1971) made a classification by taking into account the approaches that curriculum theorists reflected in their studies. Accordingly, the first group is theorists who make practice their goal and prioritize working on practice problems at school. The second group is theorists who are made for experimental purposes and based on curriculum development. In other words, these theorists use empirical research processes to reveal curriculum-related variables and relationships between variables. In the third group, there are theorists who try to overcome the deficiencies in the meaning of the concepts and to overcome these deficiencies. Jackson (1992) combined the first two groups described by Macdonald (1971) in his classification. In the other group, Jackson (1992) included other theorists who defended Tyler's rationalism and criticized the theorists who explained the curriculum with eclectic sources. From this point of view, Marsh and Willis (2003) define curriculum theorists; classified them as prescriptive, descriptive, and critical- exploratory.

Table 1. Classification of Paradigms/Perspectives on Curriculum Theories

Prescriptive	Descriptive	Critical- Exploratory
• Social needs- child centered • Social need - reconstructional • Philosophical-academic rational • Social effectiveness • Social need- rational/technical	• Pragmatists	• Social and cultural control • Autobiographical/ biographical • Phenomenological • Existential / psychoanalytic • Gender analysis and feminist pedagogy • Cultural reproduction • Social reproduction • Literary artist • Postmodern / poststructural • Race

Source: Marsh and Willis , (2003)

Classification of curriculum theorists with different approaches is given in Table 1. It can be said that prescriptive theorists focus on society, descriptive theorists focus on the individual and more specific groups, and critical-explanatory theorists focus on taking a stance against social and individual inequalities.

In the context of social theory, it can be said that prescriptive theorists are based on structural functionalists, descriptive theorists are liberal, and critical-exploratory theorists are based on approaches in critical theory and pedagogy. It can be stated that while the theories based on the prescriptive theorists mostly represent the period of modernity and modernism, the theories on which the critical-explanatory theorists are based represent the period of post- modernism. It can be said that the theories on which descriptive theorists are based represent a transition period between modernism and postmodernism in historical and theoretical terms.

This classification is also supported by the theory-practice conflict in educational sciences. Prescriptive theorists prioritize theories and argue that practice can be realized within the framework of theories, while descriptive theorists put practice in the foreground and argue that practices create theories. When the approaches of prescriptive theorists are examined, it can be said that while the power center is the curriculum development specialists, in the approaches of the descriptive theorists, the power center shifts to the teacher. Critical-exploratory theorists, on the other hand, question the theory-practice relationship with a critical method and display a stance against power centers. On the other hand, critical-explanatory theorists do not distinguish between theory and practice, but give importance to theory-practice interaction, emancipation, emancipation praxis, etc. highlighting the concepts.

Psychometric properties of the Inventory of Orientations in Curriculum Theories (IOCT)" search for an answer to the question. In addition, as a methodological innovation in this study, it was aimed to develop a systematic by using qualitative clustering analysis in the item writing process of the scales in the inventory.

Method

In this section, information is given about the study group of the research and the development stages of the inventory. In this context, cluster analysis was performed in the QDA Miner qualitative analysis program to obtain the items during the development phase of IOCT. Specialist opinion was taken for the items obtained and the content validity ratios of the items were calculated. Then, the validity and reliability analyzes of the scales in which the draft items were brought together were made. In this context, SPSS program was used for exploratory factor analysis and Lisrell package program was used for confirmatory factor analysis.

Study Group

For the first stage of the research, a study group was formed among the teachers working in primary, secondary and high schools affiliated to the Ministry of National Education in the 2015-2016 academic year in Ankara.

Data were obtained from the study groups in order to perform exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) during the scale development process. A study group of 379 participants was used in the EFA for the ınventory and its' three scales. In the CFA process, study groups consisting of 229 participants were used for the Orientation Scale for Prescriptive Curriculum Theories (OSPCT), 212 for the Orientation Scale for the Descriptive Curriculum Theories (OSDCT), and 219 participants for the Orientation Scale for the Critical-Explanatory Curriculum Theories (OSCECT).

Item Writing Process of IOCT

When the literature is examined, the source of the items to be included in a measurement tool; literature review, specialist opinion or judge decisions. In this section, after the literature review, the systematic developed for the item writing of the measurement tool is explained. The steps followed in the item pooling process of the scales in the inventory are as follows:

Marsh and Willis (2003), the first group is called prescriptive, the second group is descriptive, and the third group is critical- explanatory. In this context, the works of prescriptive, descriptive and critical-explanatory theorists were examined. Separate item pools were created for each group by utilizing the works of theorists with different approaches and views.

Table 2. Exemplary Curriculum Theories and Some Curriculum Theorists

Prescriptive	Descriptive	Critical - Exploratory
Social need - child centered	Schwab (1969)	Social and cultural control
Dewey (1900,1902)	Walker (1971)	Young (1971), Bernstein (1973)
Kilpatrick (1918)	Westbury (1972)	Autobiographical/Biographical
Rugg (1927)	Connelly (1978)	Pinar (1972, 1974), Pinar and Grumet (1976)
Social need - reconstructionism	Reid (1978)	Connelly / Clandinin (1988), Miller (1992)
	Roby (1983)	Goodson (1981), Butt (1983),
Hughes (1972)	Gough (1984)	Maeth Lang (1999)
Skillbeck (1976)	Smith (1984)	Phenomenological
	Tripp (1984)	Willis (1979), Van Manen (1980, 2000)

Source: (Marsh and Willis, 2003)

During the writing process of the items in the inventory, all the documents obtained after the literature review were translated into Word. Transforming the documents into Word in the analysis program enabled the sentences to be perceived holistically. In this context, the sources obtained through the literature review were examined by making content analysis (cluster analysis). The analysis process was carried out in two stages.

In the first stage of the analysis, the studies of curriculum theorists were divided into 3 separate document files (prescriptive, descriptive and critical-explanatory) in the context of Marsh and Willis' (2003) classification. Then, these files were loaded into the analysis program as 3 different document files. Cluster analysis was performed on these document files separately. As a result of this analysis, dendongrams (clustering charts) of 3 separate document files were obtained. At this stage, words with more than 5% frequency were included in the clustering analysis.
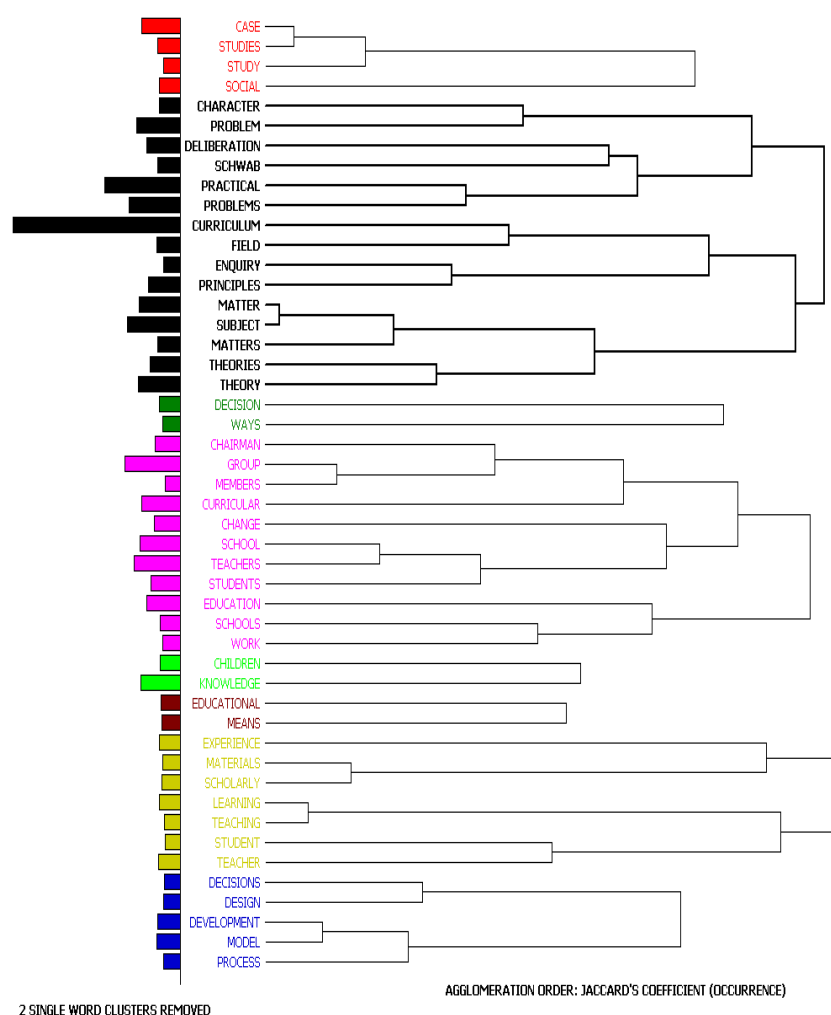
Figure 1. A Sample Clustering Chart for the Group Study File

After the clustered concepts were compared, the second stage of the analysis was started in order to determine in which contexts the words came together. At this stage, each cluster was studied separately. The words in each clustering chart were called from the documents in various combinations. At this stage, "sentence" was used as the unit of analysis. In other words, the sentences in which the words determined as a result of cluster analysis are used together were called from the documents. These sentences obtained from the documents were examined and the items related to the inventory were obtained.

For example, the words of the first set in figure 1; It is "Case, Study , Studies and Social"

Sentences containing at least two of these determined concepts as a binary combination of four were called from the program. In other words, all sentences containing two of these four concepts were taken as document output. In summary, sentences within the algorithms determined from the articles written by descriptive theorists loaded into the QDA Miner program were output. These sentences then formed the item pool.

For example:

6 the good CASE STUDY would constitute vicarious experience for the planner

CASE; STUDY 6 DOCUMENT 29 2 11

A good case study provides training planners with vicarious experience.

In this process, the sentences that were not understood as a result of the analysis were re-examined with the help of language and field specialists, and the article writing process was completed.

After the article writing process was completed, the articles were presented to the faculty members in the Thesis Monitoring Committee (TMS). At this stage, help was received from the faculty members in the TMS for the clarity of the items and the absence of meaning shift. In line with the opinions received from the TMS, arrangements were made on the inventory items and the inventory was presented to the specialist opinion.

Validity and Reliability Studies of IOCT

Other factors affecting the validity of the measurement tool should also be considered. CVR is also used as an approximation for content or construct validity. The content validity rates are obtained by collecting the opinions of the specialists on the items. For the inventory, opinions were received from 9 specialists specialized in 3 measurement and evaluation, 3 field theory specialists, 2 program development and 1 Turkish education. In line with the opinions of 9 specialists, items with a CVR value of less than 0.75 were removed from the item pool by taking the opinions of the members of the Thesis Monitoring Committee. Likert type as 'I totally disagree', 'I do not agree', 'I agree moderately', 'I agree' and 'I totally agree'. As a result of the corrections made, the draft inventory was applied to the working groups and exploratory factor analysis was performed with the data obtained. In order to determine whether the inventory obtained as a result of the analyzes works in different samples, confirmatory factor analysis was performed and the scale was finalized. In order to determine the reliability of the inventory, the Cronbach Alpha internal consistency coefficient for each scale was calculated.

Findings and Results

In IOCT Findings Concerning the Psychometric Properties of the Included Scales

Psychometric properties of the Orientation Scales Regarding the Prescriptive, Descriptive and Critical-Explanatory Curriculum Theories in IOCT are given below.

Testing the Requirements of the IOCT Inventory for Factor Analysis of the Data Sets of OSPCT, OSDCT and OSCECT

Factor analysis was performed to reveal the construct validity of the inventory 's ***OSPCT***, ***OSDCT*** and OSCECT. Since exploratory factor analysis is a parametric test, it is necessary to reveal whether the requirements are met. In this context, it has been examined whether the data meet the requirements of normality, multivariate normality, linearity , extreme value and multicollinearity .

The descriptive statistics of the study group and; Skewness= -.687 and kurtosis= .997 values for OSPCT and Skewness = -.171, kurtosis = . 519 values for OSDCT and skewness= -.135, kurtosis= .179 values for OSCECT show that normality is achieved.

In order to determine the extreme values, the total scores were converted into standardized z scores. Data exceeding the values of - 4 and +4 were accepted as extreme values. Mahalanobis distances were tested by using regression in order to determine the versatile extreme values, which is another study . Among the resulting values, the critical chi-square value for OSPCT (P<.001; χ^2= 86.66); Outliers for OSDCT (P<.001; χ^2= 73.402) and for OSCECT (P<.001; χ^2= 86.66) were deleted.

It has also been examined whether there is a multicollinearity problem in the data pattern. In this context, variance increase factors (VIF), tolerance values for independent variables, state condition index (CI) were examined. For OSPCT the values of the variance increase factors (VIF) were 1.36 and 1.21; for OSDCT Values of VIF are 1.065, 1.141, 1.049 and 1.116; It can be said that there is no multicollinearity problem in all three subscales, since OSCECT is 1.062, 1.138, 1.048 and 1.111, that is, VIF<10. Tolerance values for independent variables are .885 and .948 for OSPCT; .939, .876, .954, and .896 for OSDCT and .879, .942, and .954 for OSCECT. The fact that these values are greater than .10 can be said to indicate that there is no multicollinearity problem. State condition indices (CI) for OSPCT 5.24 and 18.36; It was determined that they were between 5.26 and 15.93 for OSDCT and between 5.25 and 15.98 for OSCECT. The fact that these values are less than 30 can be said to be another sign that there is no multicollinearity problem.

Multivariate normality and linearity , the matrix formed from the scatter diagram was examined. It has been revealed that the shapes of the diagrams in the matrix are close to ellipse. In this context, it was seen that the multivariate normality and linearity assumptions were also met. On

the other hand, linear, logarithmic, inverse, quadratic and cubic values of variable distributions were examined. The high linearity score among these values can be seen as another proof.

For factor analysis, first of all, the KMO value, which allows testing the suitability of the data set for analysis, was examined and .919 for OSPCT; It was found .892 for OSDCT and .758 for OSCECT. In order for the data set to be suitable for factor analysis, this value should be at least above .50 (Büyüköztürk, 2003; Özdamar, 2013). The result of the Bartlett Test, which also serves the same purpose, for OSPCT is .919 [x^2 = 8017.126; p<0.01]; For OSDCT, [x^2 = 4060,945; p<0.01] and for OSCECT [x^2 = 3480.817 ; p<0.01] was found. These values show that factor analysis can be performed on the specified data sets .

Factor Analysis Results of Inventory Related to OSPCT

As a result of the exploratory factor analysis performed to improve OSPCT, the numbered 1, 2, 5, 8, 9, 10, 11, 24, 25, 26, 27, 28, 29, 30, 31, 34, 35, 38, 41 and 47 It was determined that the items did not show sufficient factor loading (those with a factor load below .400). Therefore, it was decided to exclude these items from the scale. It is seen that the factor load values of the remaining items vary between .471 and .794. It was determined that the item-total correlations ranged between .502 and .772. The remaining items were included under a single factor. After these processes, it was seen that there were 27 items in the scale. The variance explained by the items under a single factor is 46,053%. Since the scale was considered as one-dimensional, the Cronbach - Alpha internal consistency coefficient was found to be .954. Item factor load values and item total correlations are given in Table 3, and the anti- image correlation values of the items are given in Table 4.

Table 3. Factor Analysis of OSPCT Primary Factor Load Values and Item Total Correlation Results

Item No.	First Factor Load Value	Item-Total Correlation	Item No.	First Factor Load Value	Item-Total Correlation
M3	.610	.585	M22	.559	.598
M4	.602	.580	M23	.564	.502
M6	.743	.722	M32	.759	.739
M7	.620	.600	M33	.693	.660
M12	.720	.699	M36	.719	.669
M13	.794	.772	M37	.700	.647
M14	.771	.750	M39	.715	.613
M15	.747	.733	M40	.648	.684
M16	.627	.608	M42	.683	.633
M17	.687	.661	M43	.734	.711
M18	.792	.768	M44	.471	.549
M19	.731	.687	M45	.665	.611
M20	.658	.603	M46	.580	.571
M21	.612	.559			
Variance Explained by Factor = 46.053%					
Cronbach Alpha = .954					

Table 3 was examined, it was determined that as a result of the exploratory factor analysis, the primary factor loads of the remaining items in the scale did not fall below .471 and the item-total correlations did not fall below .502. In the Cronbach Alpha reliability review, " Cronbach's Alpha If item It was determined that if any item was removed from the scale in the " Deleted " section, the Cronbach Alpha reliability coefficient fell below .954. In this case, it can be said that the contribution of all items to reliability is high (Özdamar, 2013).

Table 4. Anti– image Correlation Values of OSPCT's Substances

Item No.	Anti–Image Correlation Values	Item No.	Anti–Image Correlation Values
M3	.897	M22	.883
M4	.889	M23	.892
M6	.932	M32	.930
M7	.952	M33	.922
M12	.913	M36	.938
M13	.960	M37	.925
M14	.907	M39	.932
M15	.902	M40	.897
M16	.916	M42	.925
M17	.923	M43	.935
M18	.929	M44	.912
M19	.950	M45	.929
M20	.892	M46	.892
M21	.898		

Table 4 was examined, it was determined that the anti- image correlation values of the items ranged between .883 and .960. It is seen that the anti- image values of the items in the scale do not fall below .50. According to Özdamar (2013), this situation shows that the contribution of the load values of the items to the factor structure is high.

Scree obtained as a result of exploratory factor analysis and given in Figure 3. The plot also gives the impression that the scale has a single factor.
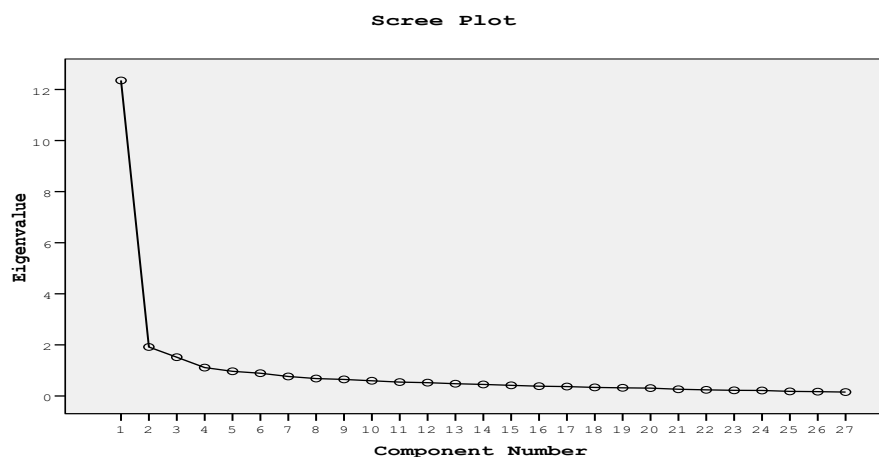
Figure 2. Scree of OSPCT Plot Chart

In Figure 2, it is seen that a flattening started in the graph after the first factor and this continues. This shows that there is no new factor after the flattening point of the graph (Büyüköztürk, 2003). Accordingly, the graph gives the idea that the scale can consist of a single factor.

Factor Analysis Results of the Inventory Related to OSDCT

6 , 7, 8, 9, 11, 12, 13, 14, 15, 16, 20, 21, 26, 27, 28, 29, 30, 31, 32 and 38 items did not show sufficient factor loading (those with a factor load below .400) and showed a high correlation in more than one factor. Therefore, it was decided to remove these items from the scale. It is seen that the factor load values of the remaining items vary between .442 and .743. The item-total correlations ranged from .451 to .683. The remaining items were grouped under a single factor. The variance explained by the items under a single factor is 43.26%. When the scale was considered as one-dimensional, the Cronbach - Alpha internal consistency coefficient was found to be .907. Item factor load values and item total correlations are given in Table 5, and the anti- image correlation values of the items are given in Table 6.

Table 5. OSDCT Factor Analysis Primary Factor Load Values and Item Total Correlation Results

Item No.	First Factor Load Value	Item-Total Correlation	Item No.	First Factor Load Value	Item-Total Correlation
M1	.727	.660	M10	.640	.574
M2	.694	.622	M11	.614	.544
M3	.714	.664	M12	.697	.633
M4	.692	.639	M13	.699	.632
M5	.743	.683	M14	.730	.669
M6	.640	.664	M15	.452	.486
M7	.724	.600	M16	.476	.452
M8	.721	.669	M17	.442	.451
M9	.697	.635	M18	.633	.614

Variance Explained by Factor = 43.26%
Cronbach Alpha = .907

When Table 5 was examined, it was determined that the primary factor loads of the remaining items in the scale did not fall below .442 and the item-total correlations did not fall below .451 as a result of the exploratory factor analysis. In the Cronbach Alpha reliability analysis, it was determined that if any item was removed from the scale, the Cronbach Alpha reliability coefficient fell below .907. In this context, it can be said that all items have a high contribution to reliability (Özdamar, 2013).

Table 6. To OSDCT Anti– image Correlation Values of Substances

Item No.	Anti–Image Correlation	Item No.	Anti–Image Correlation
M1	.879	M22	.946
M2	.840	M23	.898
M3	.915	M24	.849
M4	.905	M25	.873
M5	.873	M33	.908
M10	.954	M34	.936
M17	.814	M35	.910
M18	.774	M36	.946
M19	.919	M37	.944

Table 6 was examined, it was determined that the anti- image correlation values of the items varied between .774 and .954. These results show that the contribution of the load values of the items to the factor structure is high.

Scree obtained as a result of exploratory factor analysis and given in Figure 3 The plot plot gives the impression that the scale is one factor.
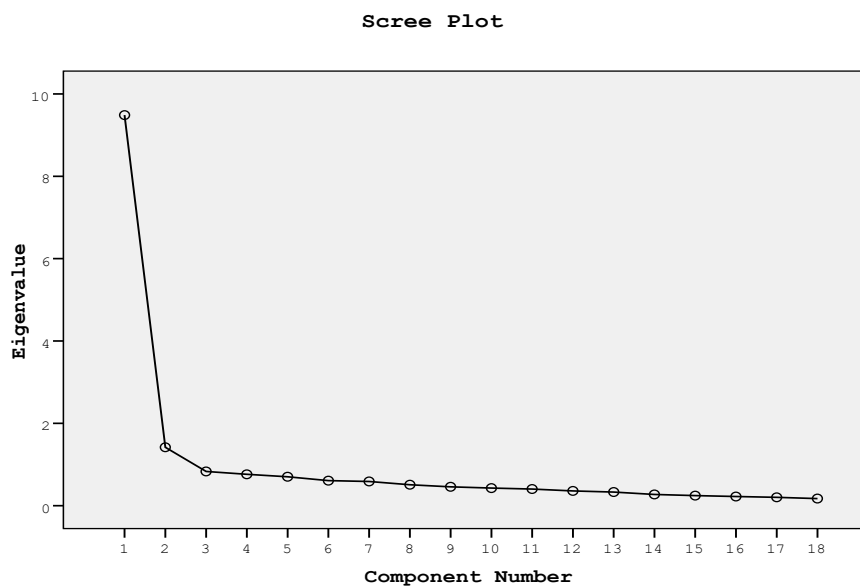
Figure 3. Scree of OSDCT Plot Chart

In Figure 3, it is seen that a flattening started in the graph after the first factor and this continues. This shows that there is no new factor after the flattening point of the graph (Büyüköztürk, 2003). Accordingly, the graph gives the idea that the scale may consist of a factor.

Factor Analysis Results of the Inventory Related to OSCECT

OSCECT as a result of the exploratory factor analysis using the factor analysis method, 1, 2, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17, 18, 20, 23, 24, 26, 27, 28, 30, 32 It was determined that items numbered 33, 34, 35, 36, 37, 39, 40, 43, 47, 48, 50 and 51 showed high correlation in multiple factors. Therefore, it was decided to exclude these items from the scale. It is seen that the factor load values of

the remaining items vary between .434 and .657. The item-total correlations ranged between .346 and .666. The remaining items were placed under three factors. The variance explained by the items under three factors was 63.19%. When the scale was considered as one-dimensional, the Cronbach - Alpha internal consistency coefficient was found to be .919. Thus, the total score for the scale was obtained. Item factor load values and item total correlations are given in Table 7, and the anti- image correlation values of the items are given in Table 8.

Table 7. OSCECT Factor Analysis Primary Factor Load Values and Item Total Correlation Results

Item No.	First Factor Load Value	Item-Total Correlation	Item No.	First Factor Load Value	Item-Total Correlation
M3	.571	.618	M31	.549	.573
M4	.622	.599	M38	.435	.485
M5	.542	.550	M41	.628	.537
M6	.607	.621	M42	.613	.666
M11	.438	.346	M44	.503	.590
M19	.434	.472	M45	.541	.481
M21	.551	.490	M46	.519	.586
M22	.541	.635	M49	.555	.610
M25	.599	.597	M52	.657	.524
M29	.493	.434			

Variance Explained by Three Factors = 63.139 %
Cronbach Alpha = .919

When Table 7 was examined, it was determined that as a result of the exploratory factor analysis, the primary factor loads of the remaining items in the scale did not fall below .434 and the item-total correlations did not fall below .346. The Cronbach Alpha reliability coefficient was determined to be .919 . In this case, it can be said that the contribution of the items to reliability is high (Özdamar, 2013).

Table 8. Anti-image Correlation Values of Substances Belonging to OSCECT

Item No.	Anti–Image Correlation	Item No.	Anti–Image Correlation
M3	.723	M31	.857
M4	.694	M38	.844
M5	.763	M41	.889
M6	.777	M42	.866
M11	.806	M44	.846
M19	.760	M45	.827
M21	.730	M46	.810
M22	.749	M49	.880
M25	.752	M52	.890
M29	.739		

Table 8 was examined, it was determined that the anti- image correlation values of the items varied between 0.694 and 0.890". This result shows that the contribution of the load values of the items to the factor structure is high. Scree obtained as a result of exploratory factor analysis and given in Figure 4 The plot plot gives the impression that the scale has three factors.
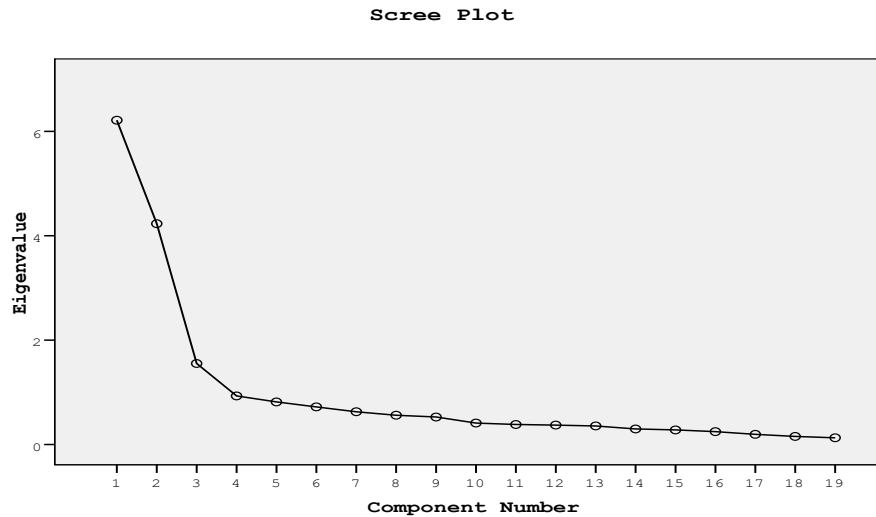
Figure 4. Scree Displaying the Number of Factors of OSCECT Plot Chart

In the figure, after the third factor, the graph shows that a flattening has started and continues. Accordingly, the graph gives the idea that the scale may consist of three factors. In exploratory factor analysis, " Varimax " rotation method was applied to the data set in order to show whether there are sub-dimensions in the scale and if there are sub-dimensions, which items are gathered under which sub-dimensions (Büyüköztürk, 2003; Özdamar, 2013). The applied " Varimax " rotation results are shown in table 9.

Table 9. Factors Obtained as a result of Varimax Rotation of OSCECT

	Factors			
	1	2	3	Cronbach Alpha Value
M44	.788			
M42	.758			
M46	.740			
M49	.738			.923
M41	.724			
M38	.717			
M45	.702			
M52	.682			
M11	.577			
M8	.471			
M29		.804		
M21		.772		.829
M25		.765		
M31		.763		
M22		.710		
M6			.775	
M4			.771	.845
M3			.708	
M5			.696	

When Table 9 is examined ;

- Items 8, 11, 38, 41, 42, 44, 45, 46, 49 and 52 constitute a sub-dimension (first sub-dimension),

- Items 21, 22, 25, 29 and 31 constitute a sub-dimension (second sub-dimension),

- It was determined that items 3, 4, 5 and 6 constitute a sub-dimension (third sub-dimension).

The reliability coefficients of the sub-dimensions are respectively; .923, .829 and .845 were found.

The inventory was finalized as a result of the exploratory factor and reliability analysis performed on the OSCECT. According to this;

- Items 8, 11, 38, 41,42,44, 45, 46, 49 and 52 have been renumbered *items 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10* . The sub-dimension formed by these items is " **Making sense of the socio - political content of education in the individual** ",

- Items 21, 22, 25, 29 and 31 have been renumbered as *items 11, 12, 13, 14* and *15* . The sub-dimension created by these items is "**Developing resistance to deterministic curriculums and practices .** ",

- Items 3, 4, 5 and 19 have been renumbered *items 16, 17, 18 and 19* . The sub-dimension formed by these items was named as the sub-dimension of " **Awareness about the functions of producing/reproducing the society ".** It was determined that the items in the third dimension of the scale should be reverse coded.

IOCT Inventory to OSPCT, OSDCT and OSCECT Testing the Requirements for Confirmatory Factor Analysis of the Data Sets of

OSPCT, which is the first scale of the inventory, confirmatory factor analysis was performed to determine whether the resulting structure was confirmed or not. Since confirmatory factor analysis is a parametric test, it is necessary to reveal whether the requirements are met. In this context, it was examined whether the requirements of normality, multivariate normality, linearity , extreme value and multicollinearity were met.

Descriptive statistics of the study group were examined, skewness = .294 and kurtosis = -.841 for OSPCT; the values of skewness = .281, kurtosis = -.573 for OSDCT, and skewness = -.198, kurtosis = .072 for OSCECT indicate that normality is achieved.

In order to determine the extreme values, the total scores were converted into standardized z scores. Data exceeding -4 and +4 values were accepted as extreme values. Another study is to determine multidirectional extreme values. Mahalanobis distances were tested using Regression to determine multi-directional extreme values . The resulting critical chi-square value for OSPCT

(P<.001; χ²= 55,476); Exceeding extreme values for OSDCT (P<.001; χ²= 42.312) and OSCECT (P<.001; χ²= 86.661) were deleted.

It has also been examined whether there is a multicollinearity problem in the data pattern. In this context, variance increase factors (VIF), tolerance values for independent variables, state condition index (CI) were examined. VIF values for OSPCT are 1.006 and 1.116; for OSDCT It can be said that there is no multicollinearity problem since these values are between 1.647 and 1.336 and between 1.029 and 1.152 for OSCECT and VIF < 10 . Tolerance values for independent variables are .939 and .994 for OSPCT; for OSDCT .607 and . 749 and for OSCECT .868 and .972 . The fact that these values are greater than .10 can be said to indicate that there is no multicollinearity problem. for CI's OSPCT 4,742 and 7,715 ; 15,905 and 27,452 for OSDCT and 5.863 and 26.219 for OSCECT between them was determined. The fact that these values are less than 30 can be shown as another sign that there is no multicollinearity problem.

Multivariate normality and linearity, the matrices formed from the scatter diagram were examined. It has been revealed that the shapes of the diagrams in the matrix are close to ellipse . On the other hand, linear, logarithmic, inverse, quadratic and cubic values of variable distributions were examined. High linearity scores among these values can be seen as another proof. These values show that confirmatory factor analysis can be performed on data sets.

Results of Confirmatory Factor Analysis for OSPCT, OSDCT and OSCECT

Confirmatory factor analysis was performed by applying the developed scale to different samples. Figures 5, 6 and 7 show the models resulting from Confirmatory Factor Analysis.
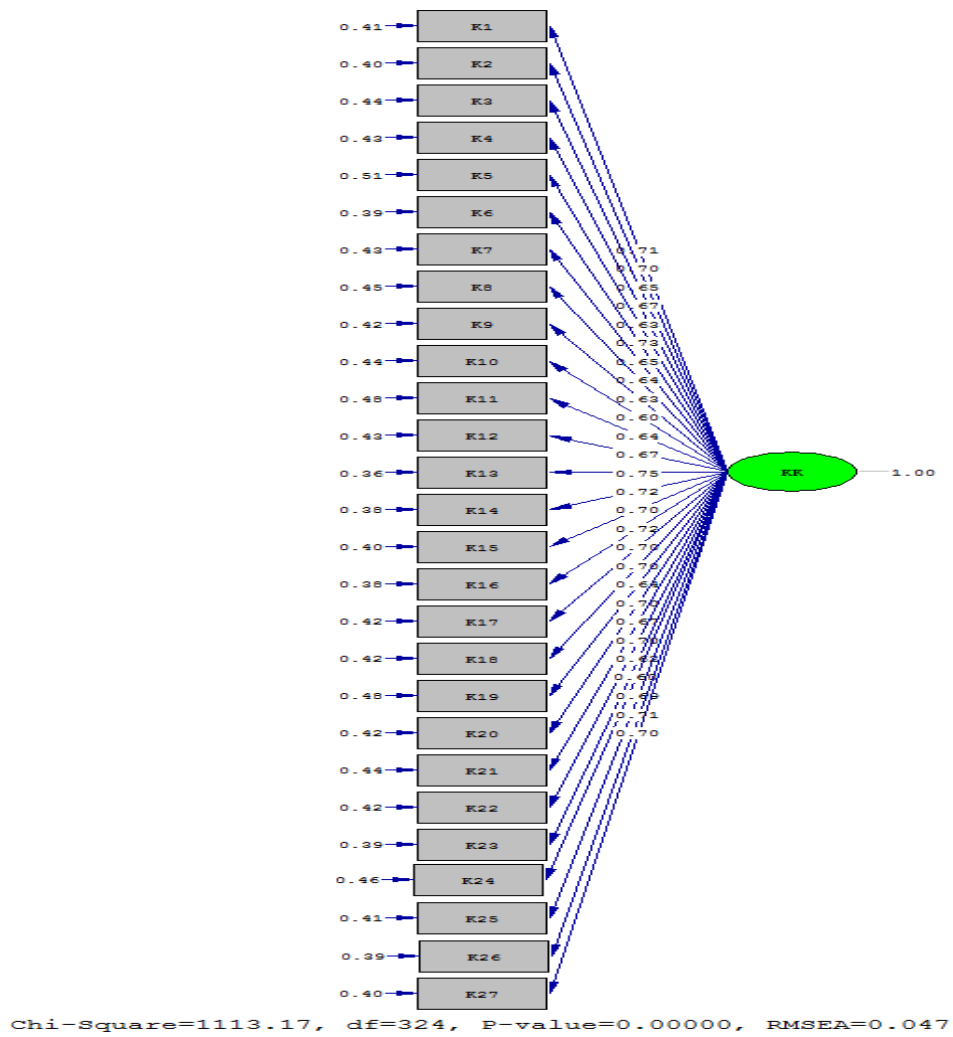
Figure 5. Confirmatory Factor Analysis Model of OSPCT (Standardized Values)
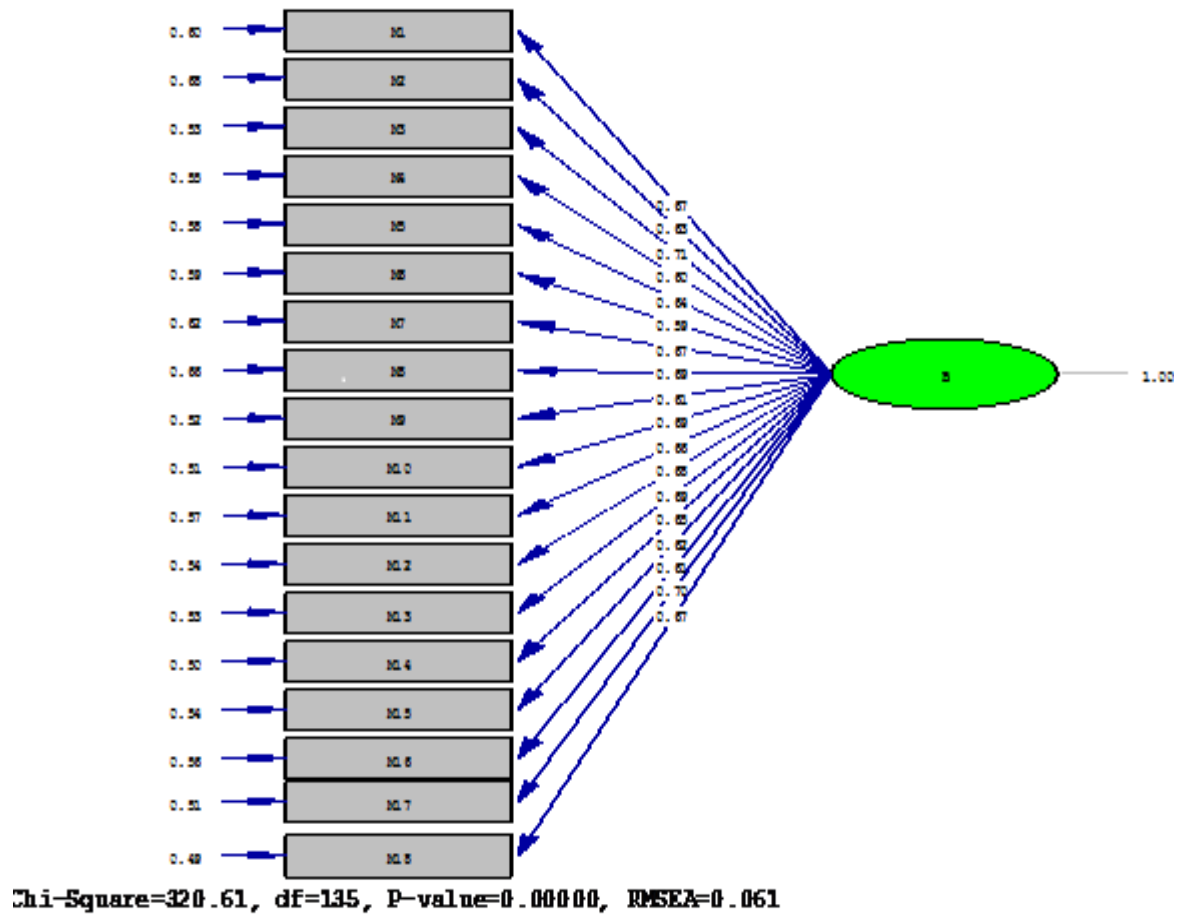
Figure 6. Confirmatory Factor Analysis Model of OSDCT (Standardized Values)
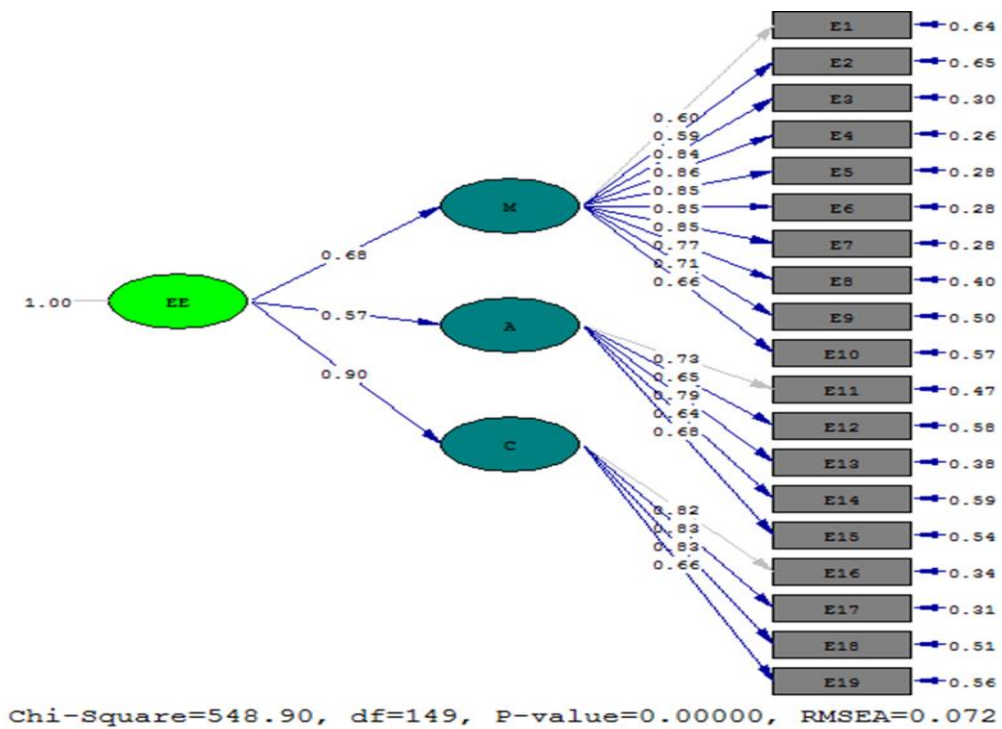
Figure 7. Confirmatory Factor Analysis Model for OSCECT *(Standardized Values)*

Figure 5 is examined, it is seen that the Chi-square and degrees of freedom values obtained as a result of CFA for OSPCT are $\chi2$=1113.17, (sd =324, p<.01) and the ratio is $\chi2$/ sd = 3.44. When Figure 6 is examined, it is seen that the Chi-square and degrees of freedom values obtained as a result of CFA for OSDCT are $\chi2$=320.61, (sd =135, p<.01) and the ratio of $\chi2$/ sd =2.37 is obtained. When Figure 7 is examined, it is seen that the Chi-square and degrees of freedom values obtained as a result of CFA for OSCECT are $\chi2$=548.90, (df =149, p<.01) and the ratio is $\chi2$/ sd =3.68.

The fact that these ratios are below 4 indicates an acceptable fit (Jöreskog and Sörbom , 1993; Sümer, 2000; Kline , 2005). In addition, it was determined that the t values of all items were significant and the model was acceptable. In this study, it can be said that the fit between the model obtained as a result of CFA and the data is acceptable.

The fit values obtained as a result of CFA are summarized in Table 10.

Table 10. Fit Values Obtained as a result of CFA

	χ^2	h_d	χ^2/h_d	RMSEA	AGFI	SRMR	RMR	NNFI	CFI	NFI	IFI
OSPCT	113.17	324	3.44	.047	.89	.064	.079	.95	.90	.91	.95
OSDCT	320.61	135	2.37	.061	.93	.056	.064	.94	.92	.93	.95
OSCECT	548.90	149	3.68	.072	.84	.071	.087	.92	.94	.95	.94

It can be said that one of the most commonly used indices of lack of fit in CFA is RMSEA . The fact that the RMSEA index is .05 and less than this value is an indicator of model-data fit; however, it is stated that this value can be accepted up to .08 (Browne and Cudeck , 1993; Hu and Bentler, 1999; Şimşek, 2007; Vieira , 2011). The RMSEA value in this study was .047 for OSPCT; The values of .061 for OSDCT and .072 for OSCECT can be accepted as an indicator of fit for these models.

DFA , the AGFI value is higher than 0.80, the RMR value is less than "0.10" (Anderson and Gerbing , 1984; Marsh , Balla and McDonald, 1988), and the SRMR value is lower than "0.08" (Şimşek, 2007). can be said to be acceptable. As a result of CFA, the concordance values were AGFI=0.89, RMR=0.079 and SRMR= 0.064 for OSPCT; AGFI =.93, RMR=.92, and SRMR= .56 for BEEPTIÖ, and AGFI= .84, RMR= .087, and SRMR= .071 for E-AEPTIÖ. According to these results, it can be said that the data fit of the models is acceptable.

DFA indicates that model data fit corresponds to "perfect fit" (Bentler, 1990; Sümer, 2000; Şimşek, 2007; Çokluk, Güçlü, & Büyüköztürk, 2008). As a result of the analysis, NNFI= .95, CFI= .90 and NFI= .91 and IFI= .95 for OSPCT; NNFI =.94, CFI=.92, and N FI=.93 and IFI= .95 for OSDCT, and NNFI=.92, CFI=.94, and NFI=.95 and IFI= .94 for E- OSCECT. According to these results, it can be said that the data fit of the models is good.

CFA is to show the level of fit of a defined model with the data obtained (Sümbüloğlu & Akdağ, 2009). In this context, it can be said that the one-dimensional structure of OSPCT and OSDCT and the three-dimensional structure of OSCECT were confirmed according to the fit statistics obtained from confirmatory factor analysis.

Conclusion and Discussion

In this study, a measurement tool was developed to determine teachers' orientations regarding curriculum theories. In this context, a new culture-specific measurement tool has been developed that aims to determine the interaction between scientists, specialists and teachers in the field, in other words, theorists and practitioners. The IOCT inventory consists of three scales: OSPCT, OSDCT and OSCECT. OSPCT consists of 27 items, OSDCT consists of 18 items and OSCECT consists of 19 items. The highest score that can be obtained from OSPCT is 135 and the lowest 27; The highest score that can be obtained from OSDCT is 90 and the lowest is 18; the highest score that can be obtained from OSCECT is 95 and the lowest is 19. All three scales are evaluated within themselves. Thus, it can be determined to what extent a teacher has a prescriptive, descriptive or critical-explanatory curriculum orientation.

In this study, the reason for using the classification made by Marsh and Willis (2003) for curriculum specialists/theoreticians is This classification is thought to have a stronger distinction. Another reason for this situation is that each scale in the inventory has different philosophical, educational philosophy and theoretical origins. In the later stages of the thesis study, which was carried out using this inventory, interviews were held with some teachers selected according to the scores they got from the scales and their teaching processes were observed. It has been observed that teachers who have a normative, descriptive and critical-explanatory curriculum orientation behave in the classroom and in the process of curriculum implementation in the context of the characteristics included in the literature and scale (Türe, 2017). This result was another indicator of validity and reliability for the scales in the inventory. In addition, in the studies conducted in the field of education in Turkey, it is seen that the samples generally focus on teacher candidates studying at education faculties. For this reason, it has been considered important to develop a measurement tool that determines teachers' orientations towards curriculums in Turkey.

Considering that the applied curriculums are affected by the theoretical orientations of the teachers, concrete reflections of the theoretical orientations that are accepted as abstract can be revealed in the education process. In addition, it is stated that theoretical awareness is important for effective curriculum implementation in schools (Ornstein & Hunkins, 1998), and curriculum studies are expected to help teachers develop their own theories and educational philosophies (Henson, 1995). Posner (1992) stated that there are five types of curriculums: formal, implemented, implicit,

neglected, and extra. It is stated that there are differences between the official curriculum and the applied curriculum and the teacher has an important role in these differences (Öztürk, 2012). For this reason, revealing the relations between the theoretical orientations of the teachers and their practices will also help to reveal the relations between the official curriculum and the applied curriculum.

Qualitative cluster analysis was used in the item writing process of the inventory of Orientation in Curriculum Theories (OICT). Thus, a systematic was developed for the article writing process, which was carried out depending on the literature review carried out during the article writing process. It is thought that this study can contribute to the literature with the innovation it brings to transform the article writing process into an observable process.

Policy Implications

An important subject of education policies and practices is teachers. Teachers are the most important subject reflecting education policies to classrooms. Curriculums are developed in the context of the basic philosophy, objectives and decisions of educational policies ; (Wahlström & Sundberg, 2018). In this context, curriculum is a concept that includes both educational-instructional and educational policies for teachers. The teacher's approach to the curriculum determines the extent to which the curriculum is reflected in the teaching processes (Ertok & Ummanel, 2021; Kuloglu & Tutus, 2022). This seems to be important in the context of the reflection of education policies on teaching processes. One of the important variables that determine the teacher's approach to the curriculum is the teacher's orientation towards curriculum theories. For this reason, the orientation of teachers' curriculum theory is important in the context of the reflection of education policies on the education process. For this reason, a measurement tool has been developed to determine the orientation of teachers' curriculum theories. In this context, a discussion area can be created in the context of the educational policies adopted by teachers and their orientations to curriculum theories. In summary, it can be said that education policies have a multiple interaction with the focus of this study in terms of both being the main component of the curriculum and determining the orientation of teachers' curriculum theories.

Conflict of interest

No potential conflict of interest was declared by the authors.

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Credit Author Statement

Author 1 : Conceptualization and Methodology, Investigation, Formal Analysis, Original draft preparation. Author 2 : Supervision, Methodology, Reviewing and Editing.

Ethical Statement

This study is a doctoral thesis made at the Institute of Educational Sciences of Ankara University and all processes have been ethically examined and the research permits number obtained by the Ministry of Education Ankara Directorate of National Education: 14588481-605.99-E.4268379 on 15.04.2016

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EĞİTİM PROGRAMI TEORİLERİNE İLİŞKİN YÖNELİMLER ENVANTERİ (EPTYE) (Örnek Maddeler)

Kuralcı Eğitim Programı Teorilerine İlişkin Yönelim Ölçeği (Örnek Maddeler)

Maddeler	Hiç Katılmıyorum	Katılmıyorum	Orta Düz.	Katılıyorum	Tamamen
1. Eğitim programları öğrencilerin toplumsal kurumlarla yaşamayı öğrenmelerini sağlamalıdır.					
2. Eğitim programları toplumun etik ve ahlaki standartlarını dikkate almalıdır.					
3. Eğitim programları öğrencilerin toplumsal kurallara uymasını sağlayacak tutumları değerleri ve davranışları geliştirmelidir.					
4. Eğitim programları topluma uyum sağlayabilmesi amacıyla insan doğasını biçimlendirmelidir.					
5. Eğitim programları iyi vatandaşlar yetiştirmeyi amaçlamalıdır.					

Betimleyici Eğitim Programı Teorilerine İlişkin Yönelim Ölçeği (Örnek Maddeler)

Maddeler	Hiç Katılmıyorum	Katılmıyorum	Orta Düz.	Katılıyorum	Tamamen
1. Eğitim öğretim sürecinde gerçekleşen durumların doğasını anlamak önemlidir.					
2. Eğitim öğretim sürecinde gerçekleşen durumlarının doğasını gözlemleyerek anlama çabası eğitim programlarını ortaya çıkarmaktadır.					
3. Eğitim-öğretim uygulamalarının iyi betimlendiği çalışmaları inceleyen benzer ortama sahip öğretmenler. kendi uygulamaları için çıkarımlar yapabilir.					
4. Öğretmenler, eğitim-öğretim sürecini iyi betimleyen çalışmaları inceleyerek kendi sınıfları için birer yol haritası hazırlayabilir.					
5. Eğitim programları öğretmenler için seçeneklerin bulunduğu bir yol haritasıdır.					

Eleştirel-Açımlayıcı Eğitim Programı Teorilerine İlişkin Yönelim Ölçeği (Örnek Maddeler)

Maddeler	Hiç Katılmıyorum	Katılmıyorum	Orta Düz.	Katılıyorum	Tamamen
Eğitimin sosyo-politik içeriğinin bireydeki karşılıklarını anlamlandırma					
1. Eğitim programları, öğretmen ve öğrencilerin yaşadıkları dünyayı anlamlandırmalarına olanak sağlamalıdır.					
2. Öğretmen ve öğrenciler birbirlerinin yaratıcılıklarını geliştirme çabası içinde olmalıdır.					
3. Öğretmen ve öğrenciler; birbirlerinin deneyimlerini bilinçli yorumlamalar yaparak anlamlandırabilir.					
4. Öğretmen ve öğrenciler; kendi davranışlarının değerlerinin ve kişiliklerinin farkında olmalıdır.					
5. Öğretmen ve öğrenciler mantıklı içsel yorumlama yapmayı geliştirmelidir.					

A Validity and Reliability Analysis of the Pre-service Teachers' Attitudes towards Virtual Classroom Environment Scale

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Abstract

This studyaims to develop a measurement tool to be used to determine the attitudes of pre-service teachers towards virtual classroom environments. For this purpose, the literature on the subject was examined, and student opinions were taken. As a result of these processes, a 50-item piloting form of the scale was prepared. The prepared scale items were presented to the expert opinion in terms of content validity, and after the feedback obtained from the experts, some items were rearranged with minor corrections and transformed into a 50-item scale. The scale was administered to 282 students, 234 female and 48 male, studying in different teaching programs and different grade levels at Gazi University Gazi Faculty of Education in the spring term of the 2021-2022 academic year. Validity and reliability analyses of the scale were made based on the data set obtained as a result of the application. Exploratory Factor Analysis (EFA) was performed for construct validity, and as a result of the Exploratory Factor Analysis (EFA), a scale consisting of 46 items and 2 sub-dimensions was obtained. The total variance explanation rate of the two factors in the structure of the scale was 62.79%. The reliability analysis results obtained for the scale revealed that the Cronbach's alpha reliability coefficient for the overall scale was .98, and the reliability coefficients for the sub-factors were .98 and .96, respectively.

Keywords: Virtual Classroom, Attitude, Pre-Service Teachers

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Introduction

Learning environment refers to the different physical spaces, environments, and cultures in which students perform their learning. The term also describes the culture, i.e. the shared value and belief system or "spirit" of a school or classroom, how people interact with one another, how they treat each other, and how teachers organize an educational environment to facilitate learning (Glossary of Education Reform, 2014).

The virtual classroom, on the other hand, is a teaching and learning environment within a computer-mediated communication system (Turoff, 1995), where students come together in different places under the guidance of a teacher and provide two-way communication between the teacher and the learner through visual, auditory, and textual means. It is defined as an online learning environment where tools are used (Can, 2020).

Virtual classrooms are spaces that share some of the characteristics of classrooms operating in real space but differ in some aspects. For example, in a virtual classroom, teachers can interact with students in real time, and students can interact with their peers over the internet, just as they would in a regular classroom. In physical classrooms, seating is often limited so that students can sit comfortably and have enough space for themselves. In contrast, virtual classrooms allow more students to attend classes at the same time. This makes information much more accessible with higher engagement. Like classrooms in real spaces, students and teachers can be online at the same time to facilitate instant interaction in virtual classrooms, or they can also use pre-recorded components such as videos, presentations, and lecture slides offline to facilitate learning (Sam, 2020).

Yan defined the virtual classroom as follows: "Unlike a physical classroom where teachers and students are in the same environment, a virtual classroom is an environment where everyone comes together in a different environment but in front of the computer, where they can listen to and talk to each other over the internet." He states that virtual classrooms are very similar to physical classrooms, with some features added. For example, when one person speaks, other people in the virtual classroom can listen. To raise a hand, as in a physical classroom, it is enough to click a button on the screen. Like the blackboard in the physical classroom, the teacher can use the whiteboard in the virtual classroom (Yan, 2021).

In short, virtual classrooms are environments where teachers and learners do not have to be in the same environment, and the learning and teaching process is carried out synchronously or asynchronously. In other words, learners and teachers come together in a virtual environment for a specific purpose. Unlike traditional classrooms, virtual classrooms are an audio-visual, and interactive environment with a large group of learners under the direction and control of teachers through certain virtual classroom software. Teachers can carry out all kinds of instructional activities for learners in

virtual classrooms, as in traditional classrooms, can evaluate learner success,and can effectivelyprovide feedback to learners' questions about teaching activities (Can, 2020).

Murphy, Rodrigues, & Manzanares (2008) emphasized that the purpose of traditional classrooms and virtual classrooms is to teach students, but the tools and rules differ in achieving this goal. Intermediary elements in traditional classrooms are eye contact, body language, facial expressions, textbooks, asking for words by raising hands in a physical environment, a blackboard, and a pen. In virtual classrooms, the mediating elements are voice, e-mail, messaging, textbooks, asking for words by raising hands in a virtual environment, software, and a scanner. Silence, students sitting in rows and visually facing the teacher, informal planning, collective conversation, physical existence, simultaneous existence in the physical environment; freedom of speech, students facing a computer screen, formal planning, public and private speaking, anonymity, synchronous and asynchronous existence in the virtual environment (Murphy, Rodrigues, & Manzanares, 2008).

The goals of the virtual classroom are to improve access to advanced learning experiences by allowing students and educators to participate in distance learning communities from home or work using personal computers, and to improve the quality and effectiveness of education by using computers to support a collaborative learning process. (Bouton &Garth, 1983; Whipple, 1987).

According to Sam(2020), a virtual classroom should include the following features:

- Video conferencing: it is necessary to use the best web conferencing software to facilitate learner-teacher-learner communication.
- Digital whiteboards: real-time demonstrations and diagrams should be provided.
- Instant messaging: text conversations should be allowed.
- Participation controls: enable students to participate in discussions, muffle their surroundings, or raise their hands virtually.
- Sub-chats: opportunities should be provided to facilitate collaboration among students.
- Video recording: live lectures should be recorded as videos on demand for later viewing.
- End-to-end encryption: virtual classroom access should be restricted to authorized students.

Lessons conducted in virtual classrooms have some strengths compared to physical classrooms (Yılmaz, 2015; Xenos, 2018; Sam, 2020; Alhat, 2020; Can, 2020; Almuqbil, 2021; Can &Gündüz, 2021; Willermark, 2021; Soodtoetong&Rattanasiriwongwut, 2022). It provides intensiveinteraction with its feature of offering multiple communication channels such as virtual classrooms, online virtual meeting software, chat rooms, messaging, voice calls, and conference options. Digital whiteboards, file sharing, virtual meeting apps, and chats facilitate collaborative learning among students. This mimics the real-time atmosphere of classrooms without having to meet physically; it also increases knowledge retention by consolidation. Virtual classrooms focus on

students and their real-time education, as opposed to pre-recorded videos, which are teacher-centered with student-centered instruction. Students can ask questions, clarify concepts, and discuss topics in real time. It also offers the opportunity for personalized learning. With recorded live virtual classrooms, students can progress at their own pace using the pause, rewind, replay, and fast-forward features of recordings. In virtual classrooms, a variety of different content-media types can be used to present information in a way that appeals to a variety of student abilities and learning styles. These can include videos, presentations, animations, digital whiteboards, and webinars. Human interaction is critical to the success of an education system; virtual classrooms offer comfortable learning spaces, allowing students to interact and chat with their peers and teachers without compromise. It also supports students with class phobia. It allows students who are unable to attend classes on a regular basis for a variety of reasons to do so from anywhere in the world. It requires less effort and time to attend classes than physical classes. It also contributes to the development of digital skills and lifelong learning skills in individuals. It allows learners to take lessons from different field experts in their environment. It enables parents to participate more quickly and closely in the educational lives of learners. It makes the teaching-learning process more transparent. Learning in the virtual classroom can be perceived as a specific type of collaborative work. Studies on the virtual classroom environment have revealed that they support the view that learning in the virtual classroom environment can be more interactive and more effective than the physical classroom learning method for mature and motivated students (Welsch, 1982; Quinn et al., 1983; Davie & Palmer, 1984; Harasim et al., 1990; Hiltz, 1988, 1990, 1992, 1993, 1995; cited in Turoff, 1995).

Virtual classrooms have some weaknesses as well (Sam, 2020; Alhat, 2020; Can, 2020; Terada, 2020; Sage, Jackson, Fox, and Maurer, 2021; Can &Gündüz, 2021; Willermark, 2021; Greenan, 2021). One of the weakest aspects is that theyrequire a computer and an internet connection, whichposes a challengefor those who do not have sufficient infrastructure and equipment. It also requires technological literacy. The ability to record and replay virtual lessons may cause students to disregard the importance of the lessons and postpone their learning actions, or students can share computers and take care of sick family members, etc. They may face difficulties that can increase procrastination, so they may not be suitable for all disciplines. Efficiency may be reduced if courses focus on traditional methods and one-way presentations. Long-term use of technology can cause health problems. Technical problems may occur. If teachers do not have the requiredskills, there may be a lack of feedback and interaction. The classroom environment is a social environment where individuals communicate with each other; however, building relationships in online classes can be a bit of a challenge because cues and non-verbal information are limited. Physical and social distance can cause loneliness. It may not be suitable for students with special needs. It requires self-discipline in learners. Apart from these, there are additional limitations in virtual classrooms compared to physical classrooms. For example, teachers cannot navigate inside the virtual classroom to browse

and check students' work as they can in physical classrooms. A student cannot ask their teacher to pause when experiencing technical problems or there is not much a teacher can do if he or she is distracted by siblings or other distractorsin the immediate environment.

The aim of both traditional classrooms and virtual classrooms is to provide quality learning for the student. However, there are manyvariables that play a role in the realization of quality learning. It is very important to determine these variables correctly so that learning retention and quality can be increased. One of these variables is students' attitudes towards the subject, learning, and learning environment (Karatay&Kartallıoğlu, 2012). Attitude, which is one of the affective components, is an important variable that affects learning in virtual environments where distance education takes place (Sanders & Morrison-Shetlar, 2001). For this reason, it is important to determine the attitudes towards virtual classroom environments, which we see intensely applied in education, especially during the COVID-19 pandemic, and to develop a measurement tool that will serve to determine the attitudes in this direction, which is the purpose of this research.

Although the COVID-19 pandemic has a weaker global impact today, emergency distance education was a lifesaver during the pandemic. Millions of students atall levels of education were able to continue their education in this way. To minimize the negative effects of similar extraordinary events on the education process and to facilitate the adaptation of individuals and societies to technological developments, the continuity of studies becomes mandatory. In addition, the fact that the pre-service teachers were taught in virtual classrooms for three years is another important factor guiding current educational practices.

Method

Research Design

The surveywas used to describe the existing situation as it is. In this respect, this study is descriptive and aimed to develop a measurement tool to determine the attitudes of pre-service teachers towards virtual classrooms.

Population& Sample

The population of the research consists of 6400 students studying at different teaching programs and different grade levels at Gazi University Gazi Faculty of Education in the spring term of 2020–2021. Due to some limitations that prevent reaching the whole population, sampling was preferred. The data were collected from a total of 282 students, 234 female and 48 male, studying in 4 teaching programs randomly selected from among twenty-four teaching programs. Purposive sampling was used in the research. Purposeful sampling is preferred when it is desired to work in one or more special cases that meet certain criteria or have certain characteristics (Büyüköztürk et al., 2012).

Regarding the size of the sample to administer the scale, including a sample of 100 participantsis found as weak, 200 as moderate, 300 as good, 500 as very good, and 1000 as excellent (Tabachnick&Fidell, 2007; Field, 2013).

Scale Development Process

The scale of the items on the scale was created using a five-point Likert type. The following stages were followed in the development of the scale (Tezbaşaran, 2008; DeVellis, 2017):

1. Establishing the item pool

2. Obtaining expert opinions

3. Creating the pilot form and pre-testing

4. Making an item analysis

In order to determine the items to be included in the scale and to create a related item pool, first of all, a literature review was conducted and relevant studies were determined. With this process, students' opinions on the subject were taken, and 50 items in the item pool created in these ways were presented to a group of five field experts in terms of content validity. Some items were rearranged in line with the common opinions of the experts. The scale form, which was arranged as "strongly agree," "strongly agree," "partially agree," "disagree," and "strongly disagree," was presented to 25 pre-service teachers to find out whether there were any items that could not be understood. Based on the feedback received from the pre-service teachers, the scale, consisting of 25 negative and 25 positive items, was revisedand finalized.

The data obtained were transferred to the computer environment through the SPSS 22 program, negative items were scored in reverse, and analyses based on validity and reliability were carried out on the data set of 282 students.

First, the Kaiser-Meyer-Olkin (KMO) test and the Bartlett Sphericity test were performed to check the suitability of the data set, which was created based on the opinions of 282 students, for exploratory factor analysis. Thus, evidence for factor analysis was obtained, and varimax axis rotation was applied to make the factors clearer. After the EFA, four scale items were removed from the scale on the grounds that they did not meet the criteria. The final version of the scale consisted of two sub-dimensions and 46 items.

Regarding the reliability of the scale, Cronbach's Alpha reliability coefficient and item-total correlations were examined to determine the distinctiveness of the attitudes of the pre-service teachers towards the virtual classroom environment. The upper-lower 27% group scores were compared for the

t-test for independent groups and the two equal halves of the scale. The Spearman-Brown internal consistency coefficient was calculated.

Findings

Findings Regarding the Validity of the Scale

The findings obtained from the analyses on the construct validity of the scale are given below.

Exploratory Factor Analysis

The Kaiser-Meyer-Olkin (KMO) value used to determine the scale application data set's suitability for factor analysis is.97.This value shows that the Kaiser-Meyer-Olkin (KMO) value is sufficient at the "perfect" level. The BarlettSphericity value is [X^2= 13106,946; p<.001] as a result of the Barlett test.The significant significance value obtained as a result of Bartlett's Test of Sphericity indicates that factor analysis can be performed and the data set has a multivariate normal distribution. In this sense, these values determined about the scale constitute sufficient evidence for the application of factor analysis to the existing data set (Kalaycı, 2006; Field, 2013).

In order to determine whether the sub-dimensions (factors) to be formed are related to each other, first of all, axis rotation was applied with the "Varimax" method. After obtaining the proof of correlation, the rotation method was again performed with the "Direct Oblimin" method. After varimax rotation, a scale structure consisting of two sub-dimensions with eigenvalues greater than 1 was determined. The 2 sub-dimensions identified explain 62.79% of the total variance. A value between 40% and 60% is acceptable for social sciences (Özdamar, 2013, Tavşancıl, 2014). Figure 1 shows the Scree Plotshaped according to the eigenvalues of the scale sub-dimensions.
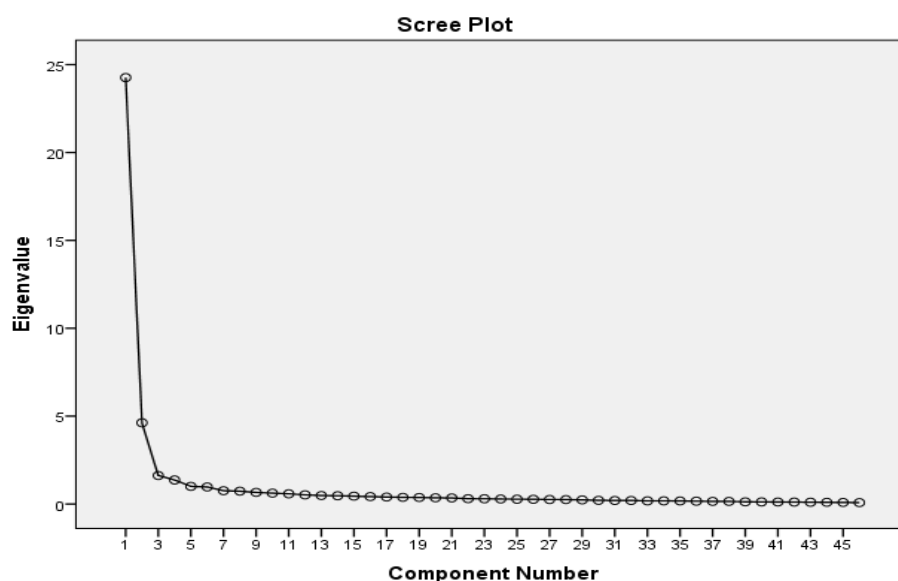
Figure 1. Scale Eigenvalue Factor Plot

The EFAvalues regarding the scale are given in Table 1.

Table 1. Exploratory Factor Analysis Results of Attitudestowards Virtual Classroom EnvironmentScale

Factors	Factor Loads	Eigenvalue	Explained Variance %
Factor 1:Resistance to the Virtual Classroom Environment		24,262	34,409
33. The virtual classroom implementation gives me bad feelings.	,787		
40. The virtual classroom environment is the address of non-interaction.	,734		
23. Teaching in a virtual classroom environment is boring.	,710		
26. Virtual classroom lessons do not interest me.	,681		
35. Even if there is no virtual classroom implementation.	,646		
37. Virtual classroom is boring.	,633		
18. Teaching in the virtual classroom reduces the quality of education.	,603		
24. Listening in a virtual classroom is against the nature of learning.	,593		
22. I do not want to attend the class in the virtual classroom environment.	,572		
34. Virtual classroom implementation is a big nothing for me.	,556		
36. The lesson in the virtual classroom environment means nothing but a wasted time.	,549		
17. Virtual classroom lessons are the reflection of despair on education.	,542		
7. I think that listening to lectures in a virtual classroom environment makes me passive.	,521		
29. I would not recommend anyone to listen to lectures in a virtual classroom environment.	,519		
25. I do not think it is necessary to teach in the virtual classroom.	,714		
32. I don't think there is a need for a virtual classroom when there is face-to-face education.	,696		
31. The virtual classroom environment makes me feel empty.	,687		
6. Teaching in a virtual classroom environment gets on my nerves.	,679		
15. Education given in virtual classroom environments is useless.	,647		
5. I cannot adapt to the virtual classroom environment.	,640		
16. The virtual classroom environment is for saving the day.	,543		
27. Virtual classroom environments are tiring.	,520		
21. Virtual classroom environments limit students.	,714		
4. I feel like an outsider in the virtual classroom environment.			
Factor 2:Positive Belief in the Virtual Classroom Environment		4,623	28,384
42. I support the virtual classroom implementation.			
41. The virtual classroom experience is a good opportunity.			
46. Virtual classroom implementations should be included in educational plans.			
49. Virtual classroom implementations are among the topics that interest me.			
43. I do not hesitate to defend the virtual classroom implementation as it stands.			
45. Virtual classroom implementations should be continued after adverse events such as the pandemic.			
12. I willingly attend classes in virtual classrooms.			

14. The virtual classroom environment is meaningful to me.	
13. I care about virtual classroom lessons.	
48. It is a privilege to have taken lessons in a virtual classroom environment.	
39. Every student should experience teaching in a virtual classroom environment.	
8. I am interested in teaching in a virtual classroom environment.	
11. The learning opportunities offered by the courses in virtual classrooms are valuable to me.	
2. I like the virtual classroom environment.	
20. I think virtual classroom environments offer a different learning experience.	
9. Virtual classroom environments are environments where learning outcomes are achieved.	
50. The effort spent on virtual classroom implementations is valuable to me.	
3. I think that I spend a productive time in the virtual classroom environment for education.	
44. The number of studies on virtual classroom implementations should be increased.	
28. I have a good time in the virtual classroom environment.	
30. The virtual classroom environment is an environment that I can look for in its absence.	
10. I don't mind at all that all lessons are held in a virtual classroom environment.	
Scale Total	62,793

Findings Related to the Reliability of the Scale

The table showing the analysis procedures and the results obtained as a result of the reliability of the scale is given below. In Table 2, Cronbach's alpha reliability coefficients for the whole scale and its sub-dimensions, item test total correlation coefficients for each scale item, and the t-test for upper-lower 27% independent groups were used to determine the significance of the difference between the mean scores of the lower and upper groups.

Table 2. Reliability Analysis Results of Attitudestowards Virtual Classroom Environment Scale

Factor–Item no	Item Total Correlation	Lower %27 – Upper%27 t	Cronbach Alpha Coefficient of Internal Consistency
Factor I			,98
Item 33	,854	16,929***	
Item40	,839	22,280***	
Item23	,864	21,632***	
Item 26	,862	24,953***	
Item 35	,856	23,380***	
Item 37	,875	27,734***	
Item 18	,817	17,013***	
Item 24	,818	17,014***	
Item 22	,869	25,791***	
Item 34	,833	19,641***	
Item 36	,842	22,737***	
Item 17	,780	15,246***	

Item 7	,764	13,416***	
Item 29	,816	18,101***	
Item 25	,780	15,052***	
Item 32	,781	19,438***	
Item 31	,757	13,774***	
Item 6	,764	14,572***	
Item 15	,768	14,951***	
Item 5	,764	14,733***	
Item 16	,718	12,960***	
Item 27	,731	12,683***	
Item 21	,712	13,487***	
Item 4	,668	10,451***	
Factor II			,96
Item 42	,870	19,372***	
Item 41	,842	18,435***	
Item 46	,797	14,694***	
Item 49	,827	15,007***	
Item 43	,823	16,324***	
Item 45	,819	18,171***	
Item 12	,801	16,518***	
Item 14	,794	15,420***	
Item 13	,737	11,144***	
Item 48	,752	13,500***	
Item 39	,713	12,396***	
Item 8	,782	17,041***	
Item 11	,726	12,406***	
Item 2	,703	11,879***	
Item 20	,681	9,980***	
Item 9	,721	12,175***	
Item 50	,648	10,289***	
Item 3	,658	10,210***	
Item 44	,587	8,034***	
Item 28	,567	7,439***	
Item 30	,566	7,598***	
Item 10	,637	10,845***	
Scale Total			,98

When Table 2 is examined, the Cronbach Alpha reliability coefficient for the overall scale is .98 and the Cronbach Alpha reliability coefficient values for its sub-dimensions are .98 and .96, respectively. These values indicate a high degree of reliability in the range of $0.80 \leq \alpha < 1.00$. The item-total correlation coefficients related to the scale items ranged between 0.57 and 0.88. Whether the items exemplify similar behaviors and that these values, which are an indicator of the internal consistency of the test, are above the reference value of 0.30 is considered sufficient evidence (Fraenkel, Wallen, & Hyun, 2012; Büyüköztürk, 2013; Tavşancıl, 2014). Furthermore, the t-test results between the upper and lower 27% groups differ at the $P<.001$ significance level. Spearman-Brown internal consistency coefficient was calculated for the two equal halves of the scale, which is quite high: "0.96".The correlation values between each sub-factor and the overall scale are given in Table 3.

Table 3. Correlation Values between Attitudestowards Virtual Classroom EnvironmentScale, Overall Scale, and Its Sub-Dimensions

	Scale Overall	Factor I
Factor I	,934**	----------
Factor II	,894**	,676**

**P<.01

Table 3 shows the correlation values for the overall scale and sub-factors related to the attitude scale towards the virtual classroom environment. When the correlation values are examined, the values are found to be between 0.68 and 0.93, and they are at a moderate and high level of positive correlation at the α=0.01 significance level.

There are 24 negative and 22 positive items in the scale, which consists of 46 items and 2 sub-dimensions, in line with the data obtained on the validity and reliability of the scale and the analyses based on it. The highest attitude score that can be obtained from the scale application is 230, and the lowest is 46. The negative items on the scale are scored in the opposite direction of positive items. The high score obtained from the scale indicates that the attitude towards the virtual classroom environment is positive, and the low score, on the contrary, indicates that the attitude towards the virtual classroom environment is negative.

Discussion, Conclusion and Recommendations

This studyaimed to develop an attitude scale with the necessary psychometric properties to be used to determine the attitudes of pre-service teachers towards the virtual classroom environment. To this end, an item pool of 50 items was created in a 5-point Likert style, taking into account the scale development stages. The items in this item pool were arranged in line with the opinions of five experts and transformed into an application form. The scale was applied to a group of 282 pre-service teachers, and validity and reliability analyzes were made on the resulting data set. The item was removed from the scale as a result of the exploratory factor analysis and reliability analyses performed on the data set 4 because it did not meet the criteria. With this analysis, a scale structure consisting of 46 items and two factors was obtained. The two sub-dimensions obtained were named "Resistance towards the Virtual Classroom Environment" and "Positive Beliefsin the Virtual Classroom Environment", respectively.

As a result of the EFA conducted for construct validity, a scale form consisting of 46 items and two sub-dimensions emerged. The total variance explanation rate of the two factors in the structure of the scale is 62.79%. The reliability analysis results obtained for the scale determined that the Cronbach alpha reliability coefficient for the overall scale is .98, and the reliability coefficients for the sub-factors are .98 and .96.

The Kaiser-Meyer-Olkin (KMO) value, which was performed to determine the suitability of the data set for factor analysis as a result of the EFA performed on the measurement tool, was .97 and the BarlettSpehericity value as a result of the Barlett test [X^2= 13106,946; p<.001]. The Cronbach Alpha reliability coefficient for the overall scale is .98 and the Cronbach Alpha reliability coefficient values for its sub-dimensions are .98 and .96, respectively. Furthermore, the t-test results between the upper and lower 27% groups differ at the P<.001 significance level. The Spearman-Brown internal consistency coefficient was calculated for two equal halves of the scale, which was observed to be quite high, with "0.96".

The results of the analysis regarding the validity and reliability of the said attitude scale reveal that it is a measurement tool with the necessary psychometric properties that can be used to determine the attitudes of pre-service teachers towards the virtual classroom environment.

When the literature was reviewed, no scale development study on the attitudes of pre-service teachers towards the virtual classroom environmentwas found. The studies carried out aimed to determine the effect of virtual learning environments on student achievement and attitudes, the views of students and teachers towards the virtual classroom, the undesirable behaviors of students in virtual classrooms, and the relationship between teachers' techniques and various classroom communication processes and outputs (Atıcı, 2004; Li, 2012; Yılmaz, 2015; Kalelioğlu et al., 2016; Yaşlıca, 2019).

In this study, a measurement tool with measurement reliability was developed to determine the attitudes of pre-service teachers towards the virtual classroom environment. However, virtual classroom practicesare not only for pre-service teachers. Attitude scale development studies can be carried out on a variety of samples and student groups. The fact that the practices related to the scale development study were carried out during the COVID-19 pandemic is a limitation of the study. The study can be renewed on a larger sample when the effect of the pandemic completely disappears. In addition, to have a more accurate assessment of the validity and reliability of the scale, it can be administeredto a wider group of participantsteaching or learning at variouslevels of education.

Policy Implications

Not only the rapid and dramatic improvements within the scope of technology and the necessities arising from them, but also epidemics that have a deep influence on human life bring different educational settings to the agenda with regard to the adaption process to the conditions in terms of education. Thus, naturally, as the most functional education tool, the implementation of virtual classrooms is in the focus. As in the whole world, the education system in our country has got its place rapidly in line with this global change by adopting distance education and set to work. Particularly, through the long process of the Covid-19 epidemic, approaches regarding distance education and virtual classroom were applied within in the education context. In spite of being used

with an extensive amount, it is striking that the studies conducted on the virtual classroom environment is scarce in number. Especially, the rareness of studies with the purpose of revealing attitudes towards virtual classroom setting or virtual classroom practices makes the significance of this study or similar-focused studies higher. Furthermore, enhancing data collection tools that will help describe the situation in this perspective and bringing them into the literature will light the way for doing new researches and developing or redesigning the existing ones. Within this context, it is considered that the research will be effective in closing the gap on above-mentioned the subject as well as providing variety in literature.

Conflict of Interest

No potential conflict of interest was declared by the authors

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Credit Author Statement

Author 1: Conceptualization, Investigation, Data Collection, Methodology, Formal Analysis, Project Administration, Writing

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Academicians and Teacher Candidates' Metaphorical Approaches to Creativity

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Abstract

The aim of this study is to reveal the perceptions of creativity of academicians working in different departments of an faculty of education and teacher candidates studying in different departments through an exploration of metaphors. A phenomenological design, as one of the qualitative research designs, was used in this study. The study group consisted of academicians working in the faculty of education of a state university and teacher candidates studying at the same university. Data were collected with a semi-structured interview form prepared by the researcher and analyzed by content analysis. As a result, it was observed that the metaphors developed by the teacher candidates and the academicians varied. It was concluded that teacher candidates mostly identified the concept of creativity with nature and based their metaphors on concepts that generated positive emotions and thoughts. On the other hand, academicians produced metaphors according to their fields of study.

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Introduction

In our rapidly changing world, traditional values have yielded their place to universal values, and this transition has featured innovative thinking, production, and reasoning as central concepts. Alongside these concepts that have been brought to the fore with such changes, the relevance of creativity has gained even more significance. Creativity entails having original, useful, and new ideas that are valuable (Amabile, 1988, 1997; Yıldırım, 1998; Zhou & Shalley, 2003; Pluer, Beghetto, & Dow, 2004; Milbrandt & Milbrandt, 2011; Robinson, 2016), producing something unique using pre-established facts (Fisher, 2004; Timuçin, 2004; Sözbilir, 2018), seeing the same thing as others but thinking about something different (Alder, 2004), and heading in directions that no one has pursued before. It involves the hope of reaching uncharted places like an explorer (Hegarty, 2014). Creativity and passion stemming from the desire to explore are traits unique to humans (Yavuz 1989; Keun & Hunt, 2006; Robinson, 2011; Michalko, 2011). Where there is a human, there is also imagination, which is at the root of creativity. The use of imagination brings with it originality and innovation (Robinson, 2016). As can be seen, the concept of creativity cannot be explained with a single limited definition. Rather, creativity can be generally defined as the process of creating new perceptions of the world by using the perspective that humankind has developed over time together with the freedom provided by imagination.

Creativity is the product of multifaceted thought (Onur & Zorlu, 2017) and it is a mental power that is believed to be inherent in all people (Alder, 2004; Lowenfeld, 1947). Mental power is highly crucial in the formation of creativity (Ülgen & Fidan 1991), because creative individuals like to think and have inquiring attitudes. They are also sensitive to problems; they feel the need to generate thoughts and develop new ways of thinking due to being aware of their environments (Adams, 2001; Gardner, 2007; Robinson, 2011; Parsıl, 2012). Every thought that is produced brings with it different possibilities and opens the way to creative thinking. Craft (2000), who presented a similar opinion, stated that an important part of creative thinking occurs with probabilistic thinking.

Creative thinking is at the center of human cognition (Amabile, 1997) and represents the ability to generate both new and useful ideas (Hennessey & Amabile, 2010). At the same time, creative thinking has a complex formation process. A creative individual first starts by analyzing a problem that awaits a solution (Bessis & Jaqui, 1973). This is followed by processes based on thought that include considerations of the environment, perceptions, images, emotions, imagination, logical thinking, analysis, synthesis, and metaphorical thinking that affect the development of creativity (Sungur, 1997; Robinson, 2011; Hooijdonk, Ritter, Linka, & Kroesbergen, 2022). Thought is the result of cognitive processes and the first step in those processes is perception (Ülgen & Fidan 1991; Yıldız & Şener, 2007).

Perception is the interpretation of the sensory impressions of individuals (Kashyap, 2018) and the stimuli transmitted to the brain through the sense organs in order to understand the environment (Püsküllüoğlu, 1995; Yıldız & Şener, 2007). Our perceptions have an important place in the phenomenon of creativity. Accordingly, perception, as an element of thought, is intertwined with creative thinking. Creative thinking develops with imagination and imaginative thinking, and imaginary concepts formed by our perceptions are chosen selectively (Öztürk, 2004). In this direction, the concept of creativity forms images, or metaphors, in the mind (Pekdoğan & Kanak, 2015).

Metaphors are formed by the combination of words. They are powerful mental tools for individuals to understand and explain abstract and complex phenomena, and they offer a way of thinking that allows for a transition from one object to another with perceptual similarity (Morgan, 1998; Saban, Koçbeker, & Saban, 2006; Semerci, 2007). In other words, a metaphor is an explanation of a concept, phenomenon, or event with another concept by way of analogy (Oxford, Tomlinson, Barcelos, Harrington, Lavine, Saleh, & Longhini, 1998). Metaphors enable the experiences of the individual to direct them from one way of understanding to another through the mind and allow them to form different mental structures related to concepts (Kövecses, 2003). Metaphors are widely used in education because they facilitate understanding, qualify concepts, are frequently used in daily life, and are an integral part of thinking (Lakoff & Johnson, 2015).

Education systems aim to develop individuals' thought structures and produce individuals who use their minds in various ways (Yenilmez & Yolcu, 2007). This raises the importance of training individuals who produce knowledge, question, and think creatively and multidimensionally (Gök & Erdoğan, 2011). At this point, it is expected that teacher candidates' awareness of the concept of creativity and its importance will increase in parallel with the quality of the training that they receive. The knowledge and competency of teacher candidates who receive training in order to provide students with creative thinking skills and develop their individuality and unique features are important. A review of the literature revealed several studies addressing topics that have included imagination and creativity in Turkish education (Ünveren, 2020), factors affecting the scientific creativity levels of secondary school students (İnel-Ekici &Tanır, 2020), the development of creative thinking skills with aesthetic creativity education activities in a social studies course (Gürkan & Dolapçıoğlu, 2020), the concepts of creativity and tolerance (Yılmaz & Güven, 2019), the metaphorical perceptions of psychology department students regarding the notion of creativity (Yavuz-Açıl & Kanlı, 2018), the analysis of science instructors' perspectives on creativity (Akcanca & Cerrah Özsevgeç, 2016), and the metaphorical perceptions of teacher candidates regarding the idea of "creative teachers" (Schreglmann & Kazancı, 2016). However, the vast majority of these studies focused solely on teacher candidates. The involvement of academicians in the present study in addition to teacher candidates is of critical importance in terms of providing a novel perspective for

the literature. Moreover, if teacher candidates are to be considered creative teachers, they are also expected to be individuals with attributes such as curiosity, openness to diverse opinions, and the capacity for critical analysis. In order for teacher candidates to become creative teachers, they must be curious, open-minded, and capable of looking at issues critically. Determining students' ways of thinking about creativity, establishing relationships, and interpreting, or, in other words, perceiving, is important in terms of representing the extent to which creative thinking abilities will be developed. Similarly, it should not be forgotten that an academic's perspective on and awareness of creativity can offer many opportunities for young people who are university students and now considered adults. It is possible for the academicians who will train teacher candidates to offer creative activities to their students in parallel with their perceptions of creativity and to create educational environments that allow their students to organize creative activities. From this point of view, the creativity perceptions of academicians can directly and indirectly affect the creativity perceptions of teacher candidates.

Aim of the study

The aim of this study is to reveal perceptions of creativity among academicians working in different departments of an education faculty and teacher candidates studying in different departments through metaphors. For this purpose, answers to the following questions were sought:

1. Which metaphors do academicians working in different departments of an education faculty and teacher candidates studying in different departments use to explain the concept of creativity?

2. To which categories do the metaphors used by academicians working in different departments of an education faculty and teacher candidates studying in different departments belong, according to their common characteristics?

Method

In this section, information about the research model, study group, data collection, data analysis, and validity and reliability is provided.

Research Model

In this study, a phenomenological design, as one of the qualitative research designs, was used since it was aimed to reveal how teacher candidates studying in an education faculty and academicians working in the same faculty perceive the concept of creativity. This design formed the basis of the study with a focus on individuals with experiences of the phenomenon being researched, aiming to highlight the perceptions and experiences of individuals from their own perspectives (Lester, 1999; Creswell, 2013) and concentrating on phenomena about which we are aware but for which we lack an in-depth and detailed understanding (Yıldırım & Şimşek, 2008).

Study Group

The study group consisted of academicians working in and teacher candidates studying in the education faculty of a state university in Turkey in the 2019-2020 academic years. The reason for choosing this study group was a desire to examine the concept of creativity in universities, which are important steps in the education and training of students and teachers. The teacher candidates and academicians included in the study group were selected according to the simple random sampling method. Simple random sampling is a method in which individuals for the study sample are randomly selected with known probability, and this probability is n/N for each individual, it is important that individuals be selected by means of a purely random process. In this sampling method, each unit is given an equal chance of being selected without making any adjustments regarding the population units (Güriş & Astar, 2019; Kurtuluş, 2010; Şenol, 2012). The demographic characteristics of the academicians and teacher candidates in the study group are shown in Table 1.

Table 1. Demographic characteristics of academicians and teacher candidates included in the study

Variables	Categories	Academicians		Teacher Candidates	
		n	%	n	%
Gender	Male	23	65.7	98	32.8
	Female	12	34.2	200	67.1
	Mathematics Teaching	6	17.1	16	5.3
	Turkish Teaching	5	14.2	47	15.7
	Classroom Teaching	5	14.2	51	17.1
Department	Social Sciences Teaching	4	11.4	91	30.5
	Psychological Counseling and Guidance	4	11.4	85	28.5
	Computer and Instructional Technologies Education	1	2.8	8	2.6
	Science Education	3	8.5	-	-
	Preschool Education	4	11.4	-	-
	Foreign Languages Education	1	2.8	-	-
	Assessment and Evaluation in Education	2	5.7	-	-

As seen in Table 1, 32.8% of the teacher candidates participating in the study were male and 67.1% were female, while 65% of the academicians were male and 34% were female. Since simple random sampling was used, it was seen that the ratios of female teacher candidates and male academicians participating in the study were higher. The differences in percentages of participants in different departments were due to the fact that data were collected considering the numbers of students in the departments in the year the study was conducted.

Data Collection

In this study, data were collected with a semi-structured interview form prepared by the researcher. This data collection tool was used because it enabled the participants to provide in-depth information about the relevant field (Büyüköztürk, Çakmak, Akgün, Karadeniz, &Demirel, 2018) and it revealed the topics that needed to be explored (Merriam, 2009). After giving brief information about the subject and metaphors to the academicians and teacher candidates, the interview form was

distributed. It was observed that the academicians took longer to express their metaphors than the teacher candidates. For the purpose of the study, the following questions were asked to ensure the integrity of the answers: "If you were to compare the concept of creativity to a living or inanimate entity, an object, or anything else you can think of, what would you compare it to? Can you explain why?" The participants were asked to complete the following parts of the form in providing their answers: "Creativity is similar to ……………….. because ……………………….." The form also included a section addressing the demographic characteristics of the participants.

Data Analysis

The data obtained in this study were first transferred to the computer environment and subjected to content analysis. A list of metaphors was created in light of the participants' ability to liken creativity to other concepts and express likeness. During this process, the forms of 57 teacher candidates and 5 academicians were deemed invalid due to inconsistency in the explanation of the metaphor or the reason for the metaphor, or an explanation not being provided. After creating that list, the frequency (f) and percentage (%) of each metaphor were calculated (Tables 2 and 3). It was observed that 147 different metaphors were produced by 298 teacher candidates and 33 different metaphors were produced by 35 academicians. Then, considering the common characteristics of the metaphors expressed by the participants, the category development stage was begun. While determining the categories, the relevant literature was examined (Akyol & Kızıltan, 2019; Aslan, 2019; Baş, & Kıvılcım, 2019; Değirmenci & Eskici, 2019; Kara & Bozbayındır, 2019; Çenberci, Sezgin Memnun, & İnce, 2020) and categories suitable for the metaphors obtained were created with 12 categories for the teacher candidates and 6 for the academicians. Categories were created by taking into account the metaphors expressed by the participants (Tables 4 and 5). In this stage, descriptive statements about the metaphors in each category were also included. Furthermore, department and gender coding was carried out for both teacher candidates and academicians. The following letters were used in the metaphor codes: I=Primary Mathematics Education, T=Turkish Education, S=Classroom Education, P=Psychological Counseling and Guidance, L=Social Studies Education, B=Computer and Instructional Technologies Education, F=Science Education, O=Preschool Education, Y=Foreign Language Education, and E=Assessment and Evaluation in Education. During the data analysis process, each of the participants was shown the ordering and coding of the data. Letters were also used to note the participant's gender at the end of each code with F=Female and M=Male for all teacher candidates and academicians (e.g., S88-F, P155-F, L226-M).

Validity and Reliability

As Merriam (2009) stated, validity and reliability are guarantees of the creation of an appropriate conceptual framework of any study with the collection, analysis, and interpretation of data and the credibility, measurability, and reliability of the findings. Yıldırım and Şimşek (2008)

emphasized that reporting the data obtained in a study and stating how the researcher reached the results of the study are important for the study's validity. In this respect, in the current study it is important to explain how the research process was carried out from the collection of data to the data analysis and to provide detailed lists of the metaphors obtained to ensure the study's validity. To ensure the study's reliability, the opinions of two different field experts were obtained regarding the metaphors created by academicians and teacher candidates. Afterwards, the reliability of the study (Reliability = Agreement/Agreement + Disagreement) was calculated as a result of the adjustments made after taking into account the feedback from those experts (Miles & Huberman, 1994). For teacher candidates, the experts associated 4 metaphors with a different category than the researcher. Considering this difference, the reliability was calculated as 147/147+4 = .97. For the academicians, it was seen that 5 metaphors were associated with a different category than that selected by the researcher, and the reliability was calculated as 33/33+5 = .86. These results confirm that the study has sufficient reliability.

Results

In this section, the metaphors created by the teacher candidates and academicians to describe the concept of creativity and the categories established for those metaphors are given. In addition, direct quotations from the participants' answers are provided.

1. Metaphors for Creativity Created by Teacher Candidates and Academicians

As a result of the analysis of the data obtained in accordance with the purpose of the study, the metaphors created by the teacher candidates and academicians to describe the concept of creativity are given in Tables 2 and 3 together with the frequencies and percentages of the metaphors.

Table 2. Metaphors of teacher candidates describing the concept of creativity

Creativity Metaphor	f	%	Creativity Metaphor	f	%	Creativity Metaphor	f	%
Dream world	27	9	Infinity	2	0.6	Artist	1	0.3
Inventing	11	3.6	Egg	2	0.6	Kite	1	0.3
Child	9	3	Awareness	1	0.3	Snowflake	1	0.3
Rainbow	8	2.6	Writing	1	0.3	Pottery master	1	0.3
Universe	6	2	Dancing with words	1	0.3	Shadow	1	0.3
Human	6	2	Canvas	1	0.3	Firework	1	0.3
Diversity	6	2	Spring	1	0.3	Woodworking	1	0.3
Sky	5	1.6	Flower blooming in the desert	1	0.3	Dot	1	0.3
Originality/uniqueness	5	1.6	Clock	1	0.3	Sailing a ship in the desert	1	0.3
Tree	5	1.6	Four operations	1	0.3	Concretization	1	0.3
Sun	5	1.6	Cosmos	1	0.3	Logic	1	0.3
Flower	4	1.3	Mountain climbing	1	0.3	Nothingness	1	0.3
Drawing	4	1.3	Rain	1	0.3	Effort	1	0.3
Innovation	4	1.3	Fingerprint	1	0.3	Flood	1	0.3

Nature	4	1.3	Finding a solution	1	0.3	Talent	1	0.3
Art	4	1.3	Bakery products	1	0.3	Screenwriting	1	0.3
Mother	3	1	Sun rising after darkness	1	0.3	Individualization	1	0.3
Food	3	1	Construction project	1	0.3	Time	1	0.3
Newborn baby	3	1	Breakthrough in civilization	1	0.3	Chameleon	1	0.3
Colors	3	1	Pottery	1	0.3	Peacock	1	0.3
Improvisation	3	1	Painting	1	0.3	Milky Way	1	0.3
Water	3	1	Sprout	1	0.3	Miracle	1	0.3
Birth	3	1	Pearls	1	0.3	Tale	1	0.3
Ocean	3	1	Fred Flintstone's car	1	0.3	Technology	1	0.3
Sea	3	1	Giving life to a log	1	0.3	Apple tree	1	0.3
Rebirth	3	1	Activity	1	0.3	Hope	1	0.3
Space	3	1	New life	1	0.3	Meteor	1	0.3
Bird	3	1	Traveling by unknown vehicle	1	0.3	Plant	1	0.3
Productivity	3	1	Using different glasses	1	0.3	Multipurpose furniture	1	0.3
Brain	3	1	Using a different bridge than others	1	0.3	Logos	1	0.3
Sculptor	3	1	Unknown	1	0.3	Sculpture	1	0.3
Play dough	3	1	Snowdrop	1	0.3	Paint	1	0.3
Butterfly	3	1	Light	1	0.3	Torch	1	0.3
Painter	2	0.6	Dough	1	0.3	Obstacles that we face	1	0.3
Black hole	2	0.6	Surprise	1	0.3	Football	1	0.3
Scientist	2	0.6	A surprise gift	1	0.3	Equation	1	0.3
Different path	2	0.6	Ant	1	0.3	Song	1	0.3
Pencil	2	0.6	Manhole cover	1	0.3	Unlimited power	1	0.3
Existing	2	0.6	Ladder	1	0.3	Cinema	1	0.3
Thinking	2	0.6	Coal	1	0.3	Toy	1	0.3
Journey	2	0.6	Intelligence	1	0.3	Telephone	1	0.3
Teacher	2	0.6	Star	1	0.3	Stone	1	0.3
Book	2	0.6	Seeing an oasis in the desert	1	0.3	Horse	1	0.3
Love	2	0.6	Seeing more than meets the eye	1	0.3	Key shop	1	0.3
Road	2	0.6	Acne	1	0.3	Walking on two hands	1	0.3
Seed	2	0.6	Magic wand	1	0.3	**TOTAL**	298	100
House construction	2	0.6	Locomotive	1	0.3			
Cloud	2	0.6	Superhero	1	0.3			
Dream	2	0.6	Money	1	0.3			
World	2	0.6	Phoenix	1	0.3			
Impossibility	2	0.6	Balloon	1	0.3			

When the findings in Table 2 are examined, it is seen that 147 different metaphors were produced as a result of grouping the metaphors created by 298 teacher candidates. Among these metaphors, the ones with the highest frequencies are dream world (f=27), inventing (f=11), child (f=9), rainbow (f=8), universe (f=6), human (f=6), diversity (f=6), sky (f=5), originality (f=5), tree

(*f*=5), and sun (*f*=5). The diversity of the metaphors produced by the teacher candidates may be due to their individual differences and may reflect unique cultural elements.

Figure 1. Word cloud consisting of metaphors produced by teacher candidates for the concept of creativity

Table 3. Metaphors of academicians describing the concept of creativity

Creativity Metaphor	*f*	%	Creativity Metaphor	*f*	%	Creativity Metaphor	*f*	%
Childhood	2	5.7	DNA	1	2.8	Art	1	2.8
Tree	2	5.7	Dream	1	2.8	Incubation	1	2.8
Artwork	1	2.8	Uncharted island	1	2.8	Cat	1	2.8
Food	1	2.8	Pi	1	2.8	Treasure	1	2.8
An empty glass	1	2.8	Newborn child	1	2.8	Factory	1	2.8
Numbers	1	2.8	Sky	1	2.8	Carpenter	1	2.8
Soil	1	2.8	Processing raw material	1	2.8	Pink	1	2.8
Book pages	1	2.8	Pomegranate	1	2.8	Bittersweet	1	2.8
Cooking	1	2.8	Champion	1	2.8	Einstein	1	2.8
Being brave	1	2.8	Human life	1	2.8	Innovation	1	2.8
Ghost	1	2.8	Talent	1	2.8	Friend in need	1	2.8
TOTAL							**35**	**100**

When the findings in Table 3 are examined, it is seen that 33 different metaphors were produced as a result of grouping the metaphors offered by 35 academicians. Childhood (*f*=2) and tree (*f*=2) have the highest frequencies among these metaphors.
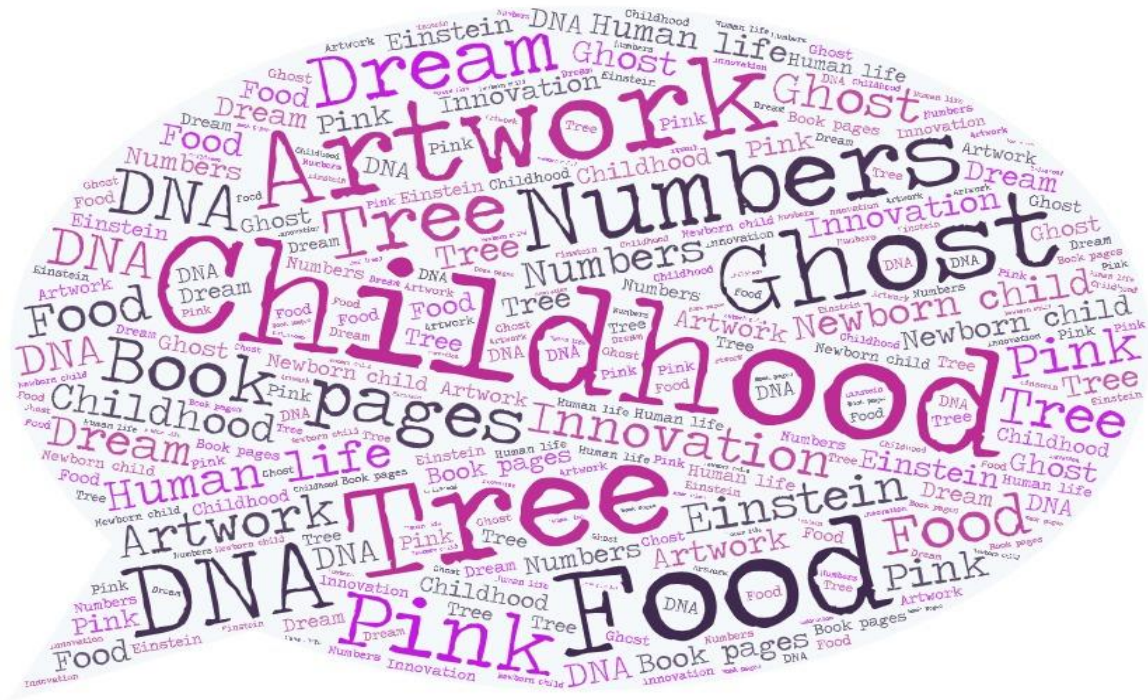
Figure 2. Word cloud consisting of metaphors produced by academicians for the concept of creativity

2. **Conceptual categories of metaphors of teacher candidates and academicians describing the concept of creativity**

The conceptual categories of the metaphors created by teacher candidates and academicians to describe the concept of creativity and the frequencies and percentages of these categories are given in Tables 4 and 5.

Table 4. Conceptual categories of the metaphors of teacher candidates describing the concept of creativity

Categories (*f*=12)	*f*	%	Metaphors (*f*=147)	*f*	%
Creativity as part of nature	20	13.6	Rainbow (S88-F, P155-F, P172-F, P175-F, L234-F, L253-F, L263-F, L226-M), tree (S66-F, L215-F, L246-F, P182-M, P292-M), nature (S75-F, P134-F, P141-F, S72-M), flower (I5-F, L229-F, L264-F, S96-M), water (T17-F, S73-F, L254-F), ocean (S80-M, P145-M, P125-F), sea (S83-F, S84-F, S89-F), seed (P131-F, L260-M), cloud (P163-F, L206-F), plant (L244-F), snowdrop (S67-F), sprout (T33-F), apple tree (L220-F), coal (S97-M), stone (L288-M), rain (I16-F), flood (P193-M), pearls (T34-F), spring (I4-F), snowflake (P159-F)	45	15.1

Creativity as an abstract concept	19	12.9	Dream world (T18-M, T37-M, T48-M, S91-M, P174-M, P178-M, L221-M, L223-M, L240-M, L287-M, T46-F, T50-F, T51-F, T57-F, S78-F, S82-F, P112-F, P116-F, P132-F, P135-F, P136-F, P151-F, P170-F, L233-F, L236-F, L242-F, L243-F), diversity (P184-F, P185-F, B195-F, L265-F, P190-M, T298-M), originality/uniqueness (T43-F, P143-F, P160-F, T52-F, P188-M), innovation (T55-F, P189-F, P293-F, L249-M), brain (P164-F, L270-F, P167-M), infinity (I8-M, L275-M), thinking (T56-F, L238-F), love (S70-M, P186-F), dream (P169-F; L210-M), awareness (S105-M), logic (P187-M), nothingness (P191-F), time (L204-F), miracle (L213-F), hope (L224-M), new life (T47-F), unknown (S61-F), intelligence (S98-F), phoenix (P147-F)	63	21.1
Creativity as work, action, and behavior	18	12.2	Improvisation (P117-F, S295-F, I12-M), birth (T32-F, P137-F, S86-M), productivity (B199-F, P144-M, L225-M), house construction (T23-M, L268-F), existing (T54-F, P114-M), journey (S62-F, L252-F), mountain climbing (P14-M), effort (P192-M), finding a solution (T20-F), activity (T45-F), traveling by unknown vehicle (T53-F), wearing different glasses (T58-M), using a different bridge than others (T60-F), seeing an oasis in the desert (S100-F), walking on two hands (S297-M), playing football (L271-M), using unlimited power (L277-F), concretization (P180-F)	27	9
Creativity as a tool	17	11.5	Inventing (T26-M, T27-M, P121-M, L209-M, L222-M, T30-F, T38-F, B198-F, L214-F, L255-F, B291-F), play dough (P157-F, P162-F, L284-F), pencil (T49-F, L203-F), clock (I6-F), pottery (T25-F), Fred Flintstone's car (S102-M), multi-purpose furniture (L245-M), logos (L247-F), manhole cover (S90-M), ladder (S104-M), toy (L280-F), money (P146-M), balloon (P154-M), torch (L258-F), dough (S81-F), construction project (L289-M), key shop (L294-M)	30	10
Creativity as an artistic element	15	10.2	Drawing (T42-F, P109-F, L278-F, I13-M), art (P156-F, L266-F, L267-F, B194-M), colors (I9-F, S79-F, S74-M), sculptor (L281-F, L282-M, L283-M), painter (L261-M, L276-F), pottery (L161-M), canvas (I2-F), woodworking (P176-M), screenwriting (B197-F), painting (T28-F), sculpture (L248-F), paint (L256-F), song (L273-F), cinema (L279-F), artist (L286-M)	26	8.7
Creativity as a cosmic element	12	8.1	Universe (T59-F, S65-F, P130-F, L228-F, L232-F, P173-M), sun (P153-F, L208-F, L250-F, S69-M, P111-M), sky (I15-F, P127-F, P129-F, P148-F, P165-F), space (P115-F, P138-F, L231-F),	29	9.7

			black hole (T29-F, S76-F), earth (L212-F, L269-F), cosmos (P110-M), Milky Way (L211-F), meteor (L230-F), star (S99-F), shadow (P166-F), light (S77-F)		
Creativity as a figurative expression	11	7.4	Newborn baby (I7-M, T36-M, T44-F), rebirth (S106-F, L201-F, S107-M), dancing with words (P118-M), sun rising after darkness (T22-M), sailing a ship in the desert (P183-F), magic wand (P133-F), flower blooming in the desert (L239-M), fingerprint (T19-F), giving life to a log (T40-M), superhero (P142-F), seeing more than meets the eye (P123-M)	15	5
Creativity as an educational element	8	5.4	Scientist (T31-F, P179-F), teacher (S63-F, L259-F), book (S64-F, L227-M), writing (S108-F), dot (P177-F), four operations (I11-F), technology (L219-M), equation (L272-M)	11	3.6
Creativity as a spiritual and cultural value	8	5.4	Child (S92-F, S94-F, P128-F, P150-F, P152-F, L218-F, L235-F, L251-F, L257-F), human (S68-F, S71-F, P113-F, P140-F, L202-F, P122-M), mother (I1-F, P120-F, P119-M), food (I3-F, S93-F, S103-M), individualization (B200-F), breakthrough in civilization (T24-F), talent (B196-F), tale (L216-F)	25	8.3
Creativity as an image expressing uncertainty	7	4.7	Different path (I39-F, T41-F), impossibility (L237-F, L274-M), obstacles that we face (S101-M), surprise (S85-M), a surprise gift (L241-F), acne (P124-M), bakery products (T21-M)	9	3
Creativity as a being from the animal kingdom	7	4.7	Bird (P126-F, P149-F, P168-F), butterfly (I10-F, L262-F, L217-F), egg (T35-F, L296-M), chameleon (L205-F), peacock (L207-F), ant (S87-M), horse (L290-M)	12	4
Creativity as a means of transport and communication	5	3.4	Road (S95-F, P181-M), kite (P158-M), firework (P171-F), telephone (L285-M), locomotive (P139-M)	6	2
TOTAL	147	100		298	100

Descriptive statements provided by participants regarding the created metaphors in these 12 conceptual categories are given below.

Creativity as a part of nature: This category contained 13.6% (*f*=20) of the total metaphors created by the teacher candidates. The metaphors included in this category were expressed by 45 teacher candidates. Some relevant statements are as follows:

"It is similar to a rainbow, because when the sky is like a blank canvas, it rains, the sun comes out, and that canvas becomes colorful with the reflection of sunlight" (L226-M).

"It is similar to a sprout, because the things in a person's mind first start with a small spark and then get big" (T33-F).

"It is similar to water, because it is fluid like water. Ideas can be generated constantly" (S73-F).

"It is similar to a flower, because when there is nothing yet and there are no colors in the soil, it emerges with a magnificent smell and in thousands of colors, without any flaws" (I5-F).

Creativity as an abstract concept: Of all metaphors created by the teacher candidates, 12.9% (f=19) were in this category. The metaphors in this category were expressed by 63 teacher candidates. Some relevant statements are as follows:

"It is similar to imagination, because we dream of things we cannot reach and we strive to achieve them. What we have achieved on this path determines the level of our creativity" (L223-M).

"It is similar to the brain, because it creates something other than existing things and this differs from person to person" (P164-F).

"It is similar to nothingness, because it can exist if it makes sense to others, but it is nothing otherwise" (P191-F).

"It is similar to a miracle, because something that has not been thought of or something that has not been seen before is revealed" (L213-F).

Creativity as work, action and behavior: This category included 12.2% (f=18) of the total metaphors created by teacher candidates. The metaphors in this category were expressed by 27 teacher candidates. Some relevant statements are as follows:

"It is similar to improvisation, because what can be done depends on the person and can reveal what goes through the mind of the person" (P117-F).

"It is similar to birth, because it is revealing something in yourself" (P137-F).

"It is similar to productivity, because it brings things to life that no one has discovered before" (P144-M).

"It is similar to a journey, because new things always emerge" (S62-F).

"It is similar to wearing different glasses, because it is to see and think differently from other people" (T58-M).

"It is similar to seeing an oasis in the desert, because when you are thirsty and want to cool off, you see an oasis. You walk toward that illusion and you will eventually find a water source while walking" (S100-F).

Creativity as a tool: This category included 11.5% (*f*=17) of the total metaphors created by teacher candidates. The metaphors in this category were expressed by 30 teacher candidates. Some relevant statements are as follows:

"It is similar to inventing, because you find it by exploring" (L255-F).

"It is similar to play dough, because it is to shape an amorphous thought and make it something new" (L284-F).

"It is similar to a clock, because it works all the time" (I6-F).

"It is similar to Fred Flintstone's car, because it doesn't appear without doing anything. It takes effort to bring it out" (S102-M).

"It is similar to a manhole cover, because just as it is not clear when the water will pour down from the manhole cover, it is not clear when the creative thought will come to one's mind" (S90-M).

"It is similar to money, because you never know who has it and when they will show it" (P146-M).

Creativity as an artistic element: Of all of the metaphors created by the teacher candidates, 10.2% (*f*=15) were in this category. The metaphors in this category were expressed by 26 teacher candidates. Some relevant statements are as follows:

"It is similar to colors, because it has different types and tones" (I9-F).

"It is similar to a painter, because different and crazy ideas emerge like the mind of a crazy painter" (L276-F).

"It is similar to a pottery master, because the same materials take different forms in the hands of each master" (P161-M).

"It is similar to a painting, because all individuals have their own painting and that is shaped according to their characteristics. Some are colorful while some are black and white" (T28-F).

Creativity as a cosmic element: This category included 8.1% (*f*=12) of the total metaphors created by the teacher candidates. The metaphors in this category were expressed by 29 teacher candidates. Some relevant statements are as follows:

"It is similar to the universe, because it is a place that has no end, where everyone sees something else and perceives different things" (L232-F).

"It is similar to the sun, because it allows us to illuminate our surroundings" (S69-M).

"It is similar to the sky, because it is endless and limitless like it" (P148-F).

"It is similar to a black hole, because it emerges from the depths of our minds and its discovery would be a big event" (S76-F).

"It is similar to a meteor, because the more you add to it, the bigger and better it gets. What comes out becomes valuable like a meteor" (L230-F).

Creativity as a figurative expression: Of all the metaphors created by the teacher candidates, 7.4% (*f*=11) were in this category. The metaphors in this category were expressed by 15 teacher candidates. Some relevant statements are as follows:

"It is similar to a newborn baby, because it is the emergence of something that does not exist" (I7-M).

"It is similar to sailing a ship in the desert, because it gives the power to achieve even the most impossible thing" (P183-F).

"It is similar to a magic wand, because it reveals the things that only exist in our dreams" (P133-F).

"It is similar to a flower blooming in the desert, because it is rare and valuable" (L239-M).

"It is similar to a fingerprint, because it is unique, different, and new" (T19-F).

Creativity as an educational element: This category included 5.4% (*f*=8) of the total metaphors formed by the teacher candidates. The metaphors in this category were expressed by 11 teacher candidates. Some relevant statements are as follows:

"It is similar to a scientist, because it creates something different and unique" (P179-F).

"It is similar to books, because it expands people's horizons by constantly offering new ideas" (S64-F).

"It is similar to four [mathematical] operations, because new numbers are generated with each new operation" (I11-F).

Creativity as a spiritual and cultural value: This category included 5.4% (*f*=8) of the total metaphors created by the teacher candidates. The metaphors in this category were expressed by 25 teacher candidates. Some relevant statements are as follows:

"It is similar to a child, because it makes something unexpected and surprises at an unexpected moment" (S92-F).

"It is similar to a human, because it has the power to end an era and start a new one" (P140-F).

"It is similar to food, because food makes people stronger and more energetic" (I3-F).

Creativity as an image expressing uncertainty: Of all metaphors created by the teacher candidates, 4.7% (*f*=7) were in this category. The metaphors in this category were expressed by 9 teacher candidates. Some relevant statements are as follows:

"It is similar to a surprise, because it generates a product by making it possible to think differently than others" (S85-M).

"It is similar to acne, because you never know when or where it will appear" (P124-M).

Creativity as an entity from the animal kingdom: This category included 4.7% (*f*=7) of the total metaphors created by the teacher candidates. The metaphors in this category were expressed by 12 teacher candidates. Some relevant statements are as follows:

"It is similar to a bird, because it is bound to freedom and trusts its own wings" (P168-F).

"It is similar to a horse, because the better you take care of it, the longer it will provide its company" (L290-M).

Creativity as a means of transportation and communication: This category included 3.4% (*f*=5) of the total metaphors created by the teacher candidates. The metaphors in this category were expressed by 6 teacher candidates. Some relevant statements are as follows:

"It is similar to a firework, because it appears unexpectedly in an unusual way" (P171-F).

"It is similar to a kite, because you cannot determine its direction" (P158-M).

Table 5. Conceptual categories of the metaphors of academicians describing the concept of creativity

Categories (*f*=6)	*f*	%	Metaphors (*f*=33)	*f*	%
Creativity in the context of originality	12	36.3	Childhood (P10-M, S20-F), an empty glass (T2-F), soil (T3-F), cooking (O4-M), dream (L13-M), processing raw materials (O18-F), talent (T23-M), art (T24-M), artwork (F1-M), innovation (I34-M), pomegranate (O19-F), Einstein (S33-M)	13	37.1
Creativity as a value	5	15.1	Book pages (L8-M), being brave (L9-M), treasure (S27-M), carpenter (I30-M), friend in need (P35-M)	5	14.2
Creativity as a form of renewal	5	15.1	Tree (L15, I29-F), DNA (E11-M), newborn child (P16-M), food (F6-F), factory (B28-F)	6	17.1

Creativity as an element of uncertainty and obscurity	4	12.1	Ghost (P5-M), human life (S21-F), incubation (F25-M), cat (Y26-M)	4	11.4
Creativity as a field of discovery	4	12.1	Uncharted island (E12-M), pi (I14-F), numbers (I7-M), sky (O17-F)	4	11.4
Creativity as a happy ending	3	9	Champion (S22-M), pink (I31-F), bittersweet (T32-M)	3	8.5
TOTAL	33	100		35	100

Descriptive statements from these participants regarding the metaphors in the 12 identified conceptual categories created are given below.

Creativity in the context of originality: This category included 36.3% (f=12) of the total metaphors created by the academicians. The metaphors in this category were expressed by 13 academicians. Some relevant statements are as follows:

"It is similar to childhood, because there are no limitations and patterns. It is open to innovation" (S20-F).

"It is similar to soil, because you can shape it any way you want" (T3-F).

"It is similar to processing raw materials, because each person has their own processing methods" (018-F).

"It is similar to artwork, because it requires different thinking skills" (F1-M).

"It is similar to a pomegranate, because when viewed from the outside, the inside is invisible and mysterious. It appears as a whole, but it consists of thousands of grains that make up the whole. When you squeeze the pomegranate, it turns into different forms. It also leaves a mark on things, like [the pomegranate] leaves on clothes..." (O19-F).

Creativity as a value: Of all the metaphors created by the academicians, 15.1% (f=5) of them were in this category. The metaphors in this category were expressed by 5 academicians. Some relevant statements are as follows:

"It is similar to being brave, because it requires being able to do something without someone to guide or a way to follow" (L9-M).

"It is similar to a friend in need, because it illuminates your path when you need it most, regardless of self-interest" (P35-M).

"It is similar to treasure, because individuals who have this skill in both business and social life are always considered valuable" (S27-M).

Creativity as a form of renewal: This category contained 15.1% (*f*=5) of the total metaphors created by the academicians. The metaphors in this category were expressed by 6 academicians. Some relevant statements are as follows:

"It is similar to a tree, because while it contains a deep meaning like the root of a tree, it includes different ideas and thoughts like its branches" (I29-F).

"It is similar to DNA, because when the codes change, a new structure and behavior emerges" (E11-M).

"It is similar to food, because it keeps the body fit by nourishing both the soul and the mind" (F6-F).

Creativity as an element of uncertainty and obscurity: This category included 12.1% (*f*=4) of the total metaphors created by the academicians. The metaphors in this category were expressed by 4 academicians. Some relevant statements are as follows:

"It is similar to a ghost, because, in general, its existence is known, but what exactly it turns into is not known. It comes into being and becomes reality depending on the perception, cognition, and experiences of the person" (P5-M).

"It is similar to a cat, because it comes to your mind whenever it wants; otherwise, it will not occur to you no matter how hard you think" (Y26-M).

Creativity as a field of discovery: This category included 12.1% (*f*=4) of the total metaphors created by the academicians. The metaphors in this category were expressed by 4 academicians. Some relevant statements are as follows:

"It is similar to pi, because it has hundreds of orders that do not repeat themselves and have not yet been discovered (calculated)" (I14-F).

"It is similar to an uncharted island, because with every discovery attempt, new products emerge" (E12-M).

Creativity as a happy ending: Of all metaphors created by the academicians, 9% (*f*=3) were in this category. The metaphors in this category were expressed by 3 academicians. One example is as follows:

"It is similar to a champion, because success, that is, breaking a record, can only come after talent, effort, struggle, and patience" (S22-M).

Discussion and Conclusion

Teacher candidates studying in an education faculty developed 147 different metaphors for the concept of creativity while academicians working in the same faculty developed 33 different metaphors. The reasons for teacher candidates to develop a larger number of diverse metaphors may be the characteristics of the cosmopolitan structure of their lives and the effect of the cultural values that they hold on creativity (Güvenç, 2016; Memduhoğlu, Uçar, & Uçar, 2020). Robinson (2008) noted that creativity is not just an individual process; the cultural dimension is also important in the development of creative skills. Similarly, Glăveanu (2017) stated that the concepts of culture and creativity are interrelated. These findings also show parallelism with the metaphors expressed by the academicians participating in the present study.

The most metaphor variety was observed for teacher candidates in the category of "Creativity as a part of nature," with comparisons to things such as rainbows, trees, flowers, oceans, clouds, and plants. The vitality of nature and the diversity that it offers cause the concept of creativity to be identified with nature in people's minds, and the inspiration of nature in the perception of creativity should not be forgotten. Blockley (2021) stated that connecting with nature will help creativity. Wilson (2012) similarly described the connections among the concepts of environment, nature, and creativity and the effects of these connections on individuals. This may show that human beings have a strong connection with nature in their perception of creativity. The teacher candidates expressed creativity as an abstract concept by associating it with other abstract concepts, such as infinity, thoughts, dreams, hope, and time. Furthermore, teacher candidates had a tendency to explain the concept of creativity with elements from life, frequently encountered objects, actions, and facts, such as playing football, ladders, clocks, movies, and songs.

It was observed that the perceptions of creativity among the teacher candidates were shaped by concepts that generate positive feelings and thoughts, except for the examples of impossibility, floods, and black holes. The reason for this situation is most likely the academic resources that students use during the educational process and educators' affirmations about creativity (Orhon, 2014; Memduhoğlu, Uçar, & Uçar, 2020; Yazgın & Yazgın, 2020), as well as the effects of social awareness studies on creativity.

While defining the concept of creativity, concepts such as dream worlds (Gaudet, 2014; Robinson, 2016) or diversity and originality (Amabile, 1997; Fraley, 2007; Duda, 2009) are used. It was seen that the key expressions (e.g., originality, diversity, and imagination) included in the definitions of the concept of creativity coincided with the perceptions of creativity in the minds of the teacher candidates who participated in this study. These key expressions about the concept of creativity were the metaphors that were first mentioned by most of the teacher candidates. In this

study, a similar way of thinking emerged among the participating academicians. However, in addition to the metaphors of the academicians regarding the stages of creativity, such as innovation and originality, it is noteworthy that they also offered results-oriented expressions and evaluated creativity as a "happy ending." The metaphors revealing the perceptions of creativity among these academicians had a certain depth. They aimed to present different and striking aspects of their own perceptions while creating original metaphors that were carefully thought out and introduced a time dimension to the process of answering the question. Furthermore, it was concluded that the conceptual images in the minds of the academicians were shaped by their specific fields of study (e.g., DNA, pi, child, and book pages).

Perceptions of creativity can change according to the individual's affective characteristics, cultural structures, motivations, and gender (Robinson, 2011; Glăveanu, 2017). In this regard, it was seen that concepts reflecting certain feelings, dreams, and values (e.g., child, cooking, food, pink, birth, flower, and dough) were used in the metaphors created by female academicians and teacher candidates. A similar pattern of gender-specific responses was seen among male participants (e.g., football, coal, mountain climbing, locomotive, champion, and carpenter). The category of creativity as an element of uncertainty and obscurity was used by both academicians and teacher candidates. This highlights the nature of creativity as an exciting and surprising process for both academicians and teacher candidates.

Policy Implications

This study aimed to analyze the data collected from preservice teachers and academicians. The article focused on evaluating the perceptions and expressions of the education parties, whose education is in process and completed, regarding the concept of creativity, one of the central issues in education. Hence, it is likely to predicate that this article will provide an opportunity to assess educators' potential future instructional practices. Yet, considering the education policy, the environmental diversity and developmental conditions of the individual who will educate in the desired direction will be directly related to the educator's perspective on basic educational concepts. The data, subject to content analysis, provided by the analyzed study group will shape the educational environment of those who assume the role of educators consciously or unconsciously and address their training strategies.

The analysis of the acquired data reflected the shift in the 'Creativity' concept, an original and imaginary term, through the variables, such as department, gender, et cetera, from the perspective of individuals who received education and worked in different disciplines. The study utilized reliable and supportive data collection tools throughout the research and analysis process, and experts tested the reliability of these tools. Adhering to the conceptual framework and supporting analysis and

interpretation is crucial in the context of the validity and reliability issues. In light of the findings, therefore, the conclusions of this study will anticipatingly contribute to the change and development of education strategies and policies.

Conflict of Interest

The author declares that she has no conflicts of interest.

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Opinions of Turkish Language Teachers on The Reflection of Multiple Intelligence Theory in Turkish Coursebooks[1]

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Abstract

The aim of this study is to reveal the opinions of Turkish language teachers about the reflection of Multiple Intelligence Theory in Turkish coursebooks. The participants of the research are 30 Turkish language teachers who teach in secondary schools in Cizre district of Şırnak province in the 2020-2021 academic year. The data of the research were collected with semi-structured interview forms. Based on the data obtained in the research, separate categories were created for each question in the semi-structured interview form, and similar answers were grouped and included in the created categories. Highlights of the teacher's views were quoted directly. According to the results of the research, 83.33% of Turkish language teachers think that linguistic intelligence is the most frequently referred sort of intelligence in coursebooks, while 36.67% of teachers perceive logical-mathematical intelligence as the least frequently referred sort of intelligence in coursebooks. However, 56.67% of Turkish language teachers said that the texts and activities in the coursebook are not suitable for different intelligence domains. It has been determined that the rate of teachers who think that the level of including intelligence domains in the books differ according to the classes is 46.67%. The main problems faced by the teachers while creating activities for different intelligence domains were physical, cultural and equipment inadequacy of the schools in Cizre district of Şırnak province with 37.5%.

Keywords: Multiple Intelligence Theory, Turkish Coursebook, Turkish Language Teachers, Semi-Structured Interview

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Introduction

As an abstract concept, the subject of intelligence, which is the field of interest of many researchers and has been studied for years, continues to maintain its importance today. Thoughts about what intelligence is or is not differed from time to time. In the 19th century, a definition was made by measuring the diameter of the skulls with a ruler, and human intelligence was evaluated according to this number range. In the 20th century, studies on the physical measurement of human intelligence were left aside and mental factors were emphasized in the determination of intelligence. In the early 1900s, when psychologist Alfred Binet and a group of his friends were granted authorization to develop a test that could be used to identify students who could be unsuccessful in primary education, studies were initiated to be implemented on this subject, and as a result, the first intelligence test emerged. According to the traditional understanding of Stanford-Binet intelligence tests, people were divided as "intelligent" and "non-intelligent", but these tests did not go beyond measuring some verbal and numerical skills. For example, a person who gives correct answers to the IQ test in daily life may have various problems in communicating with people, or a very successful artist may receive low scores from these tests. This situation led researchers to the conclusion that intelligence cannot be measured in terms of one or two dimensions (Gardner, 1999; Bümen, 2005; Saban, 2005; Saban, 2010).

Howard Gardner, a neuropsychology and development expert, brought a different perspective to the subject of intelligence and defined intelligence as "a problem-solving or product creation skill that is evaluated within one or more cultural frameworks" (Gardner, 2017, p. 28-29). According to this definition, to be able to produce appropriate and effective solutions to problems, to be creative, etc. skills are elements that should be evaluated within the scope of intelligence. Based on these ideas, Gardner suggested that intelligence cannot be one-dimensional and tried to explain this view with the theory he called Multiple Intelligence Theory. The Multiple Intelligence Theory is based on the idea that there are eight types of intelligence developed in different levels in each person. These types of intelligence are: 1. Linguistic intelligence, 2. Logical-mathematical intelligence, 3. Spatial intelligence, 4. Musical intelligence, 5. Bodily-kinesthetic intelligence, 6. Interpersonal intelligence, 7. Intrapersonal intelligence and 8. Naturalist intelligence. These types of intelligence are briefly introduced below.

1. Linguistic Intelligence: It is the capacity to use language, mother tongue, and perhaps other languages to express what is on the mind and to understand other people (Checkley, 1997). People endowed with this type of intelligence can easily influence other people by using language skillfully.

2. Logical-Mathematical Intelligence: It is the capacity to "recognize concepts, work with abstract symbols such as numbers and geometric shapes, establish relationships between distinctive

pieces of information and/or see different connections between these pieces" (Tarman, 1998, p. 13). Demonstrating success in analyzing and synthesizing is one of the main characteristics of people with high intelligence capacity.

3. Spatial Intelligence: It is an individual's capacity to accurately perceive the visual world and recreate visual aspects even in the absence of physical stimuli (Armstrong, 2003). People endowed with this type of intelligence can perceive the world and objects better visually and keep them in mind.

4. Musical Intelligence: "This intelligence includes the capacity to recognize and use rhythmic and tonal concepts and to be sensitive to sounds coming from the environment, human voices and musical instruments" (Demirel, Başbay & Erdem, 2006, p. 34). According to this type of intelligence, sensitivity to sounds is at the forefront.

5. Bodily-Kinesthetic Intelligence: "It is the capacity of an individual to use certain organs of the body to solve a problem, build a model or create a product" (Saban, 2010, p. 15). The hand skills of people who have developed bodily kinesthetic intelligence are also sophisticated.

6. Interpersonal Intelligence: It is the capacity to notice other people and distinguish between them, to perceive their moods, their motivations and their intentions in particular (Gardner, 2017). Establishing good relations with people, empathy, etc. abilities are one of the dominant features of people with sophisticated interpersonal intelligence.

7. Intrapersonal Intelligence: It is the capacity to think about one's own feelings, thoughts and actions (Fleetham, 2006). Learning from mistakes, making self-criticism and using self-regulation capacity effectively are within the scope of this intelligence type.

8. Naturalist Intelligence: It is the capacity to be intensely interested in natural resources and the environment, to recognize flora and fauna, to distinguish them in the natural world, and to be productive about these abilities (Gardner, 1999). Naturalist intelligence, which is the last intelligence type identified by Gardner, is directly related to recognizing, perceiving and understanding the natural world (Lazear, 2000).

In our country, the constructivist approach has been taken as a basis in the preparation of the curriculum since 2004. In the preparation of these programs, different theories and approaches such as spiral approach, thematic approach, skill approach, education sensitive to individual differences, student-centered education, which are compatible with the basic philosophy of the constructivist approach, are also used. In this context, determining the gains and achievements in the program,

planning the learning-teaching process, carrying out measurement and evaluation studies, etc., the principles of Multiple Intelligence Theory are taken into consideration.

Although different tools such as computers, smart boards and projections are used today, depending on technological developments, the most used tool in education is still the coursebook. Coursebooks are prepared taking into account the curriculum of the relevant course subject. For this reason, it is expected that texts addressing different intelligence areas, preparatory studies, activities related to texts and post-theme evaluation studies are expected to be included in Turkish coursebooks in accordance with the basic philosophy of the Turkish Lesson Curriculum.

Although curricula and coursebooks have an important role in the preparation, acquisition and development of texts and activities according to Multiple Intelligence Theory, teachers also have a major contribution. Because "the most effective role falls to the teachers who are in the position of practitioner and evaluator" in the education process (Kösterelioğlu & Özen, 2014, p. 154). By developing activities and designing various materials for students with different intelligence types, teachers can enrich their lessons and create learning environments that are more suitable for their students. Thus, students will be able to benefit from the education and training process more efficiently. In this context, in the study, it was tried to determine the opinions of the teachers in the field on the reflection of the Theory of Multiple Intelligences in the texts taught within the scope of the Turkish lesson and in the activities related to the texts.

Method

Research Model

Qualitative research method was used in order to determine the opinions of the teachers on the reflection of Multiple Intelligences Theory in Turkish coursebooks. According to Gürbüz & Şahin (2018), the nature of qualitative research is similar to a puzzle. Each piece of the puzzle represents the data in the qualitative research. In this context, "in the qualitative research process, the researcher tries to understand the nature of social reality (the grand scheme in the puzzle) with an exploratory point of view, acting with reference to subjective data (puzzle pieces) such as individuals' perceptions, feelings, experiences and thoughts" (Gürbüz & Şahin, 2018, p. 407). Various data collection techniques such as interview, observation and document analysis are used in qualitative research (Yıldırım & Şimşek, 2018). One of these techniques, the interview, is "a data collection tool that enables to reveal what and why people think, what their emotions, attitudes and feelings are, and the factors that direct their behavior" (Ekiz, 2020, p. 69-70). Interviews can be classified as structured, semi-structured, unstructured, focus group interviews (Sönmez & Alacapınar, 2019). Of these, semi-structured interviews "combine both fixed alternative questions and being able to conduct in-depth analysis in the relevant field" (Büyüköztürk, Kılıç Çakmak, Akgün, Karadeniz, & Demirel, 2020, p.

159). Besides, it "allows to develop a dialogue and gives more time and opportunity to identify the points that are considered important for the interviewee" (Sözer & Aydın, 2020, p. 252). In this context, semi-structured interview technique, one of the qualitative research methods, was used to determine the opinions of Turkish language teachers on the reflection of Multiple Intelligences Theory in Turkish coursebooks.

Study Group

The study group of this research consists of 30 Turkish language teachers working in Cizre district of Şırnak province in the 2020-2021 academic year. The research group was determined by using the convenience sampling method, which is one of the non-random sampling methods. The convenience sampling is "sampling made on (volunteer) individuals who are in the immediate environment and easy to reach, available on hand and willing to participate in the research" (Erkuş, 2019, p. 145). The easy sampling method is also referred to as convenience sampling or random sampling in some sources. Although it is seen as a method that is not preferred by researchers (Büyüköztürk, Kılıç Çakmak, Akgün, Karadeniz & Demirel 2020), there may be cases when sample selection is difficult. "In such cases, the researcher may prefer the appropriate sampling method. For example, students from the nearest primary school can be preferred as the sample group in the research" (Fraenkel, Wallen, & Hyun, 2012 cited by Şahin & Karakuş, 2019, p. 195). In this context, convenience sampling method was used in the creation of the study group due to the Covid-19 pandemic, which took the whole world captive. In order to conceal the identities of the teachers, female teachers were coded as F1, F2, F3; male teachers were coded as M1, M2, M3 Demographic characteristics of Turkish language teachers are given in Table 1.

Table 1. Demographic characteristics of Turkish language teachers participating in the interview

Variables		f	%
Gender			
Female		8	26.7
Male		22	73.3
	Total	30	100
Professional Seniority			
0-5 years		22	73.3
6-10 years		6	20.0
11-15 years		2	6.7
16-20 years		-	0.0
21 years and above		-	0.0
	Total	30	100
Grade(s) For Which Turkish Is Taught			
5th grade		10	33.3
6th grade		8	26.7
7th grade		7	23.3
8th grade		8	26.7

Looking at Table 1, it is seen that 73.3% of the teachers in the research group are male and 26.7% are female. When the teachers who participated in the interview are evaluated in terms of

professional seniority, it is seen that the majority (73.3%) have served between 0-5 years, 20% of the teachers have been working for 6-10 years, and 6.7% of the teachers have been working for 11-15 years. The fact that Turkish language teachers attend classes in more than one grade provided a balanced distribution in terms of 5th, 6th, 7th and 8th grades.

Data Collection

A semi-structured interview form prepared by the researcher was used to determine the opinions of Turkish language teachers about the level of the Theory of Multiple Intelligences being included in Turkish coursebooks. The first four questions in the semi-structured interview form, which consists of 12 questions in total, are aimed at determining the demographic characteristics of the participants. The remaining eight questions were prepared for the research topic. The semi-structured interview form to be applied to the teachers was broached to three field experts in order to ensure internal validity in the research. Field experts evaluated the questions in the interview form in terms of whether the questions were comprehensible and whether they covered the research topic. Based on the feedback from the field experts, the questions were revised, and necessary corrections were made. The data obtained by conducting a pilot interview with two Turkish language teachers who were excluded from the sample were evaluated. After the evaluation, it was concluded that the questions in the semi-structured interview form provided the desired data, and this interview form was applied to the Turkish language teachers.

Data Solution and Analysis

In order to determine the opinions of Turkish language teachers about the reflection of Multiple Intelligences Theory in Turkish coursebooks, a semi-structured interview form created by the researcher was applied to the teachers. The data obtained from the semi-structured interview forms were evaluated by subjecting them to content analysis. "The basic process in content analysis is to gather similar data within the framework of certain concepts and themes and to interpret them in a way that the reader can understand" (Yıldırım & Şimşek, 2018, p. 242). In this context, the answers given by the teachers to the questions in the interview form were examined, and separate categories were created for each question. Similar responses were grouped and included in the categories created. Outstanding teachers' opinions, whose answers were within the scope of these categories, were quoted directly.

Findings

Views of Turkish Language Teachers on the Reflection of Multiple Intelligences Theory in Turkish Coursebooks

In this part of the study, the findings obtained by analyzing the data gathered from the interviews held with Turkish language teachers for the purposes of the research are included.

Table 2. Teachers' views on what intelligence is

Code		f	%
Thinking, comprehending, perceiving, judging etc.		8	25
Adaptation		5	15.63
Problem solving skill		5	15.63
Capacity to do work		3	9.38
Ability to use multiple skills		3	9.38
Competency		2	6.25
Innate function		1	3.13
An interest-ability determining factor		1	3.13
No comment		4	12.5
	Total	32	100

Table 2 shows the opinions and views of Turkish language teachers about what intelligence is. 25% of the participants defined intelligence as thinking, comprehending, perceiving, judging, and using similar concepts. M13, whose answer is in this category defined intelligence *"as the ability to reason about something, to think about something, to perceive and comprehend."* M1 similarly defines intelligence as *"thinking, reasoning, perceiving, comprehending, judging objective facts."*

15.63% of the teachers defined intelligence as adaptability, in other words, as an adaptation skill. The opinions of M10 and M16, who expressed their opinions in this direction, are as follows:

"It is adaptation to the problem you face, adaptation to the social circle you enter." (M10)

"Intelligence is the person's ability to adapt to the environment. The smarter a person is, the faster she/he adapts to the environment." (M16)

According to M11 who is one of the participants among the 15.63% of the section who see problem-solving skills as a reflection of intelligence, *"Intelligence is the state of being able to instantly find the shortest and positive solution for difficult situations or problems."*

9.38% of the participants argued that intelligence is the capacity to do work. F6 highlighted the ability of intelligence to do work and practice by saying *"It is a person's ability to do certain things in different fields."*, and M2 said *"It is a person's capacity to do a job."* thus he emphasized that he agrees with F6.

M8 and M22 are in the 9.38% segment, who apprehend the ability to use multiple skills as the equivalence of intelligence and therefore basically consider the intelligence areas in Multiple Intelligence Theory. The opinions of the participants are as follows:

"It is the ability to use different dimensions of the mind." (M8)

"It is a dimension that cannot be measured and varies according to the situation." (M22)

M18 from the group of teachers in the 6.25% segment who consider the state of being competent in any subject as intelligence, defined intelligence only as *"Proficiency"*. According to this definition, if a person is proficient in a subject, it can be concluded that this person is intelligent.

M7, which is mostly encountered in old theories and who argues that intelligence is completely innate defines intelligence as *"A brain function bestowed on human beings."* He defended the view that intelligence is innate and independent from environmental factors.

Table 3. The opinions of the teachers on the three intelligence types mostly included in the texts and activities in the Turkish coursebooks

Sequencing		Types of Intelligence									
		LI	LMI	SI	MI	BKI	IPI	II	NI	NC	T
1st Sequence	f	25	-	2	-	-	-	-	1	2	30
	%	**83.33**	-	6.67	-	-	-	-	3.33	6.67	100
2nd Sequence	f	3	2	16	-	-	6	1	-	2	30
	%	10	6.67	**53.33**	-	-	20	3.33	-	6.67	100
3rd Sequence	f	-	2	7	3	1	9	3	-	5	30
	%	-	6.67	23.33	10	3.33	**30**	10	-	16.67	100

LI: Linguistic Intelligence, LMI: Logical-Mathematical Intelligence, SI: Spatial Intelligence, MI: Musical Intelligence, BKI: Bodily-Kinesthetic Intelligence, IPI: Interpersonal Intelligence, II: Intrapersonal Intelligence, NI: Naturalist Intelligence, NC: No Comment, T: Total.

Table 3 presents the opinions of Turkish language teachers about which of the three intelligence types they think are the most common in Turkish coursebooks. Accordingly, 83.33% (25 people) of the teachers placed linguistic intelligence in the first place, 53.33% (16 people) of the teachers placed the spatial intelligence in the second place, and 30% (9 people) of the teachers placed interpersonal intelligence in the third place. In this context, it is possible to say that the participants think that there are texts and activities for the development of linguistic intelligence, spatial intelligence and interpersonal intelligence, respectively, in Turkish coursebooks.

Table 4. Teachers' opinions on which three intelligence types are least included in texts and activities in Turkish coursebooks

Sequencing		Types of Intelligence									
		LI	LMI	SI	MI	BKI	IPI	II	NI	NC	T
1st Sequence	f	1	11	1	5	3	2	3	3	1	30
	%	3.33	**36.67**	3.33	16.67	10	6.67	10	10	3.33	100
2nd Sequence	f	-	2	2	2	10	1	2	7	4	30
	%	-	6.67	6.67	6.67	**33.33**	3.33	6.67	23.33	13.33	100
3rd Sequence	f	-	4	-	3	6	2	6	5	4	30
	%	-	13.33	-	10	20	6.67	**20**	16.67	13.33	100

LI: Linguistic Intelligence, LMI: Logical-Mathematical Intelligence, SI: Spatial Intelligence, MI: Musical Intelligence, BKI: Bodily-Kinesthetic Intelligence, IPI: Interpersonal Intelligence, II: Intrapersonal Intelligence, NI: Naturalist Intelligence, NC: No Comment, T: Total.

Table 4 shows the opinions of Turkish language teachers about which of the three intelligence types they think are least included in Turkish coursebooks. Accordingly, 36.67% (11 people) of the teachers placed logical-mathematical intelligence in the first place, 33.33% (10 people) of the teachers placed bodily-kinesthetic intelligence in the second place, and intrapersonal intelligence was placed in

the third row 20% (6 people). In this context, it is possible to say that the participants think that there are texts and activities aimed at the development of at least logical-mathematical intelligence, bodily-kinesthetic intelligence, and intrapersonal intelligence in Turkish coursebooks, and that these listed intelligence types are neglected.

Table 5. Opinions of teachers on the appropriateness of texts and activities in Turkish coursebooks for different intelligence types

Code		f	%
Not appropriate		17	56.67
Appropriate		6	20
Partly appropriate		4	13.33
	No comment	3	10
	Total	30	100

In Table 5, teachers' views are shown on whether the texts and activities in Turkish coursebooks are suitable and appropriate for different intelligence types. Most of the teachers (56.67%) said that the texts and activities in Turkish coursebooks are not suitable for different intelligence types. On this subject, F3 expressed her views by saying, *"I don't think there are proper activities for all intelligence types."* M5, on the other hand, gave examples from the intelligence types in the Theory of Multiple Intelligence and expressed himself by saying, *"Necessity of being based on verbal-linguistic intelligence is a deficiency. The type of intrapersonal intelligence and naturalist intelligence should be included more frequently. The activities should be prepared to cover various intelligence types."* M6, on the other hand, expressed his opinion on this subject by saying *"I think it does not reflect logical, musical and bodily-kinesthetic intelligence."* M20 stated that *"In general, I cannot say that it covers other intelligence types, but it is rather limited with 1-2 intelligence types."* He said that the target area of the book is limited to a few intelligence types.

20% of the teachers think that the texts and activities in Turkish coursebooks are suitable for different intelligence types. M7, one of the participants, expressed himself saying, *"I think the books are suitable for multiple intelligence types."* F2 also supports M7 with her comment: *"There are activities suitable for different intelligence types."*

F6 and M4, who expressed their opinions that the texts and activities in the Turkish coursebooks are partially suitable for different intelligence types, expressed their views on this subject with respect to the following sentences:

"There are activities suitable for different intelligence types, but they can be more diversified." (F6)

"We cannot confirm that the texts and activities in Turkish coursebooks are entirely suitable for different intelligence types. Because They have been prepared limited to a few of the types and not for all of them." (M4)

Table 6. Teachers' opinions on whether the level of inclusion of different intelligence types in Turkish coursebooks differs according to classes

Code		f	%
It differs		14	46.67
It does not differ		9	30
It partly differs		1	3.33
	No comment	6	20
	Total	30	100

Table 6 shows the opinions of teachers about whether the level of including different intelligence types in Turkish coursebooks differs according to grades. In this context, 46.67% of the teachers said that the level of including intelligence types in the coursebooks differs according to the classes. F3 expressed her opinions by saying that *"Yes, it differs. The activities of the lower grades are more active and diverse, while the activities of the higher grades are slightly more verbal-oriented."* M8, M14 and M20 emphasized that the level of including different intelligence types in the coursebooks should be directly proportional to the cognitive levels of the students. The opinions of these participants are given below:

"It differs. Because the cognitive level of students at all grades is not the same. As the level increases, the cognitive level of the student will increase, so the student will need more diverse intelligence types." (M8)

"As the level progresses, the level of inclusion of intelligence types differs between grades. I interpret this as normal for it to differ depending on personal development. I interpret this as normal for abstract thinking to happen. In addition to the realization and increase of abstract thinking, the increase in interests naturally necessitated the inclusion of different intelligence types." (M14)

"Since cognitive development is related to age, as a matter of fact, intelligence types also differ between levels." (M20)

The rate of teachers who argue that the coursebooks do not differ in terms of the level of addressing different intelligence types according to the grade levels is 30%. In this context, F2 said, *"I don't think it makes any difference; different intelligence types are considered and applied at each grade level."* She therefore stated that she did not notice any difference. F4, on the other hand, similarly said, *"I don't think there is a noticeable difference in terms of including intelligence types."* She stated that there was no significant difference. M12 said *"It doesn't make any difference. It's pretty much the same level."* He therefore stated that he thinks in a similar manner with respect to F2 and F4.

One of the Turkish language teachers (M16) said, *"I don't think it differs much."* He emphasized that there was no significant difference between the grades.

Table 7. Opinions of teachers on whether the level of inclusion of different intelligence types in Turkish coursebooks differs according to publishers

Code	f	%
It differs (in favor of Ministry of National Education Publications)	12	40
It differs (details are not specified)	6	20
It differs (in favor of private publisher)	3	10
It partially differs (in favor of Ministry of National Education Publications)	1	3.33
It does not differ	4	13.33
No comment	4	13.33
Total	30	100

Table 7 shows the opinions of teachers about whether the level of including different intelligence types in Turkish coursebooks differs according to publishers. 70% of the teachers said that the level of inclusion of intelligence types differs according to the publishing houses. The rate of those who say that the level of inclusion of intelligence types differs in favor of Ministry of National Education Publications is 40%. F1 stated that this difference is in favor of Ministry of National Education Publications by saying that *"It differs. Coursebooks published by the Ministry of National Education address more intelligence types."* While M17 supports this view, he also included the aspect of intelligence development and said, *"I can say that the Ministry of National Education publications are better than private publications in terms of intelligence development."*

20% of the participants stated that the level of inclusion of intelligence types is different between the coursebooks prepared by the Ministry of National Education and private publishing houses, but they did not specify which publishing house this difference is in favor of. M5 expressed his opinion by saying that *"Both publishing houses have pros and cons. There should be cooperation in the preparation process."* Based on this view, it is possible to say that there are various differences between the Ministry of National Education publications and the Turkish coursebooks published by private publishing houses, and such differences sometimes create positive and negative consequences.

M14, one of the advocates of the 10% segment who argues that there is differentiation in favor of private publications, expressed his views on this subject with the following words: *"I think that the level of inclusion of intelligence domains in the coursebooks published by private publishing houses is better distributed."*

13.3% of the participants think that there is no difference between the two publishers. F4, who expressed an opinion within the scope of this category, said, *"I don't think there is a difference. I think that both the books prepared by the Ministry of National Education and the books of private publishing houses are monotonous."* M18 said, *"I don't think there is much difference between them. After all, both are taught as coursebooks in schools. So in my opinion, there is indeed a similarity between them."*

Table 8. Opinions of teachers on the problems they encounter while creating activities for different types of intelligence in Turkish lessons

Code	f	%
Problems related to physical, cultural characteristics and lack of equipment of schools	12	37.5
Lack of materials	7	21.88
Implementation difficulty	6	18.75
Compatibility problem	3	9.38
No comment	4	12.5
Total	32	100

Table 8 shows the opinions of teachers about the problems they encounter while creating activities that address different intelligence types in Turkish lessons. According to this, 37.5% of the teachers said that while they were creating activities that appeal to different intelligence types, they had problems related to physical, cultural and equipment inadequacy of schools. For example, M2 expressed his views on this subject: *"Physical conditions are the most important problem. Accordingly, cultural and geographical conditions are also effective. In terms of timewise, I think there is a disadvantage in this regard."* M5 stated, *"The predominance of verbal activities for memorization neglects other types of intelligence. Special activities for specific regions can be designed. Activities for comprehension skills can be increased for students in the eastern part."* He mentioned that special activities should be designed for comprehension skills, especially for students in the eastern part of the country. M9 emphasized the physical dimension of the situation a bit more by saying that *"The physical environment of the classroom is important. Having spacious classrooms in which one can move around increases student and teacher interaction. The number of students in a classroom exceeding the limit is the main problem for the activity. You can't interact with every student. The socio-economic conditions of the region are also important. The student should be open to difference."*

21.88% of the participants stated that they had problems due to lack of material. The views of F3 and M21 who expressed their opinions in this direction are given below.

"I usually have problems because the school's facilities are inadequate. I cannot do certain monitoring activities because there is no smart board. I try to perform listening activities with my own means (such as telephone, loudspeaker). Sometimes, some texts in the book can be challenging at high level. That's why I am having difficulties." (F3)

"The lack of materials at my school limits access to different types of intelligence." (M21)

In general, the participants who declared that they had problems with the implementation difficulty had a rate of 18.75%. M4 expressed the hardship of making applications in certain intelligence types by saying that *"It is not possible to create activities suitable for every intelligence type. For example, with the idea of "Naturalist and bodily-kinesthetic intelligence."* M8 said,

"Students always think of intelligence in one dimension in activities that include many different types of intelligence. The inability to blend and apply many intelligences in the activity." Thus, with his sentences, he highlighted an application problem caused by the lack of students.

9.38% of the participants stated that they experienced adaptation problems while creating activities that appeal to different intelligence types in Turkish lessons. One of the participants, M10, said, *"As activities that address the verbal-linguistic intelligence type in general are used in Turkish lessons, the student's adaptation problem is one of the most common problems I encounter with activities outside this type."* While M15 said, *"Verbal-oriented students are not open to different types of intelligence. Not suitable for classroom environments."* He defended the view that students with a dominant linguistic intelligence are closed to other intelligences and cannot adapt.

Table 9. Opinions of teachers on educational-dimensional suggestions for the development of different types of intelligence

Code	f	%
Implementing appropriate activity	12	27.91
Using appropriate material	8	18.6
Organizing / Changing physical, cultural, social etc. conditions	7	16.28
Moving away from the exam logic	4	9.3
Considering the Theory of Multiple Intelligences	3	6.98
Collaborating between disciplines	3	6.98
Using technology	2	4.65
Receiving in-service training	1	2.33
No comment	3	6.98
Total	43	100

Table 9 presents the opinions of the teachers regarding the educational dimensional suggestions they brought for the development of different types of intelligence. 27.91% of the participants suggested that appropriate activities should be used. The opinions of some participants are listed below:

"To do various activities that will reveal the child's latent powers." (M1)

"Activities can be increased in the fields of spatial intelligence and musical intelligence." (F6)

18.6% of the participants stated that appropriate materials should be used. M19, one of the advocates of this view, expressed the necessity of creating appropriate materials by saying that *"Creating environments that appeal to the most senses as possible by creating or developing materials and spaces suitable for education."* M18, on the other hand, emphasized the coursebooks and advised *"Coursebooks should be reviewed."*

16.28% of the participants made suggestions on the need to regulate and change physical, cultural, social, etc. conditions. M2 expressed his views on this subject as *"Classes should be*

organized accordingly. Environments should be created for students to organize their own activities. The physical and cultural conditions of the schools are very important in this regard. It also needs to be addressed in terms of management."

9.3% of the teachers suggested the necessity of leaving the exam logic as a suggestion. E.g; M6 stated that students should care about their personal development instead of exams by saying that *"Development of intelligence types is only possible by letting students free from the logic of the exam. A horse in a horse race cannot turn left and right and turn towards other roads."* He stated that students should care about their personal development instead of exams. F5, on the other hand, expanded the subject of exam pressure a little more and included teachers as well. *"Lessons should not be taught only in the classroom environment. Sometimes a nature park, a forest, a theater should be a classroom. Students should focus on artistic activities. Exam pressure on students and teachers should be lifted."*

M9 expressed himself by saying that *"The Turkish lesson aims to develop the student in terms of language in terms of its mission. It keeps its relationship with other courses alive. In Turkish lesson, students can discover their interests and abilities. Coursebooks are composed of pure reading and listening. Coursebooks are insufficient in this regard. The emphasis should be on drama and each sort of intelligence within the student should be revealed."*

F3, on the other hand, was the only participant who offered to receive in-service training and expressed his opinion on this subject: *"Coursebooks can be a little more colorful on the development of different intelligence types. Each theme can have at least three listening tracking texts. Visual reading and interpretation activities can be more. Games to develop bodily-kinesthetic intelligence can be added. There may be in-service trainings for teachers on this subject as well."*

Conclusion and Discussion

When the results of the research are evaluated, how 25% of the teachers think about intelligence, comprehend, perceive, judge, etc. are described in the figures. On the other hand, intelligence includes adaptation (15.63%), problem-solving skills (15.63%), ability to do work (9.38%), ability to use multiple skills (9.38%), competence (6.25%), it was also determined that innate function (3.13%) was defined as the determining factor of interest-ability (3.13%). Considering these results, Turkish language teachers do not define the concept of intelligence differently from the definitions in the current literature. It was seen that they started to perceive intelligence as being able to perform higher level skills rather than perceiving it as one-dimensional.

83.33% of Turkish language teachers think that linguistic intelligence is the most used intelligence type in coursebooks. This view of Turkish language teachers addressed by Dağlı (2006),

Kırcı (2011), Bayram & Baki (2014), Demir (2016), Epçaçan & Kırbaş (2018), Keskin & Yeşilyurt (2019), Sarikaya (2021), Başbayrak & Örge Yaşar (2021) is consistent with the results obtained in the studies. According to teachers' opinions, logical-mathematical intelligence stands out as the least included intelligence in Turkish coursebooks (36.67%). This view of Turkish language teachers is different from the results obtained in the studies of Kırbaşoğlu Kılıç, Baki & Bayram (2014), Çökmez (2017), Demir (2017), Kana & Demir (2017) and Başbayrak & Örge Yaşar (2021). Because in the aforementioned studies, it has been determined that logical-mathematical intelligence is the second most common intelligence type in coursebooks. While it is expected due to the branch that teachers emphasize linguistic intelligence, considering logical-mathematical intelligence as the least included intelligence is thought to be due to the neglect of the "logic" dimension in this intelligence type.

When the suitability of the texts and activities in the coursebooks to multiple intelligences fields was examined, 56.67% of the teachers stated that they were "not appropriate". It can be said that the fact that the texts and activities were prepared more for linguistic intelligence had an effect on the teachers' thinking manner. In the study of Kana & Demir (2017) titled *"Multiple Intelligences Theory in Secondary School Turkish Education"*, teachers stated that there are no activities in the books according to each intelligence type. Another study in which the opinion that the activities in the Turkish coursebooks is not suitable for the theory of multiple intelligences is titled *"Evaluation of Textbooks which are Used for Teaching Turkish to Syrian Students based on Teacher Opinions"* by Biçer & Kılıç (2017). In this context, it is seen that teachers have similar views that Turkish coursebooks are not prepared in accordance with the theory of multiple intelligences.

46.67% of Turkish language teachers stated that the level of including intelligence types in the coursebooks differs according to the classes, while 3.33% stated that it differs partially. The rate of teachers who stated that the level of inclusion of intelligence types in Turkish coursebooks does not differ according to classes is 30%. Başbayrak & Örge Yaşar (2021) examined the texts and activities in Turkish coursebooks in terms of Multiple Intelligences Theory in their study called *"Evaluation of 6th and 7th Grade Turkish Course Books within the Framework of Multiple Intelligence Theory"* and that the level of musical intelligence and interpersonal intelligence did not differ according to classes. They found that logical-mathematical intelligence, spatial intelligence, bodily-kinesthetic intelligence, intrapersonal intelligence, and naturalist intelligence decreased in the 7th grade, while linguistic intelligence increased. It is seen that the results obtained in the two studies overlap. 20% of the teachers did not express an opinion on this issue. It can be said that the fact that most Turkish language teachers only teach certain classes and cannot have enough command of the coursebooks at other grade levels lead to such a consequence. In addition, the fact that teachers working in the provinces of the Southeastern Region have generally just started their profession further supports this situation.

According to the results of the opinions on whether the level of inclusion of intelligence types differs according to the publishers, the opinion differs in favor of the Ministry of National Education Publications stands out with a rate of 40%. Then the views are specified as follows: it differs [(details not specified, 20%), (in favor of private publications, 10%)], does not differ (13.33%), and partially differs (in favor of Ministry of National Education Publications, 3.33%). 13.33% of the teachers have no idea about the question asked. Başbayrak & Örge Yaşar (2021) stated that Turkish coursebooks published by the Ministry of National Education are significantly ahead of those published by the private sector in terms of containing texts and activities in the types of interpersonal intelligence, intrapersonal intelligence and naturalist intelligence. Başbayrak & Örge Yaşar (2021) also stated that texts and activities for spatial intelligence are more common in Turkish coursebooks published by the private sector; they stated that there is no significant difference between publishers in terms of other types of intelligence.

At the beginning of the problems that teachers encounter while creating different intelligence activities, the physical, cultural conditions related to the inadequate equipment of the schools come with a rate of 37.5%. This is followed by lack of materials (21.88%), difficulty in application (18.75%) and adaptation problems (9.38%). 13.5% of the teachers have no idea about this issue. If this result is evaluated, it can be thought that the teachers working in the schools in Cizre district of Şırnak province emphasize these results slightly more due to the lack of equipment in the schools. Koşar (2006) similarly stated that teachers have difficulties in finding sample activities, materials, tools, guidebooks and appropriate equipment.

Teachers suggested using appropriate activities with a rate of 27.91% to develop different intelligence types. This was followed by using appropriate materials (18.6%), arranging/ changing the physical, cultural and equipment facilities of the schools (16.28%), leaving the logic of the exam (9.3%), considering the Theory of Multiple Intelligences (6.98%), disciplines cooperation (6.98%), using technology (4.65%) and in-service training (2.33%) respectively. 6.98% of the teachers do not have any suggestions. It has been stated by the teachers that the intelligence areas of the students can be developed effectively if the activities and materials that appeal to the students are provided and the knowledge of the teachers on the application of Multiple Intelligences Theory is increased through in-service training. With the consideration of Multiple Intelligence Theory and highlighting the necessity of developing appropriate materials and activities on this subject, the study was also carried out by Demir (2017) and Kalenderoğlu & Zorluoğlu (2018), with suggestions for in-service training and enrichment of educational environments, which is in line with the studies carried out by Canbay (2006) and Şener & Doğan. (2021).

Suggestions

Suggestions made based on the results obtained in the research are presented below:

▪ The Ministry of National Education should provide practical examples as well as explaining the Multiple Intelligence Theory theoretically in its curricula.

▪ While creating an activity for the Theory of Multiple Intelligences, information should be exchanged with teachers and their views and wishes should be analyzed at regular intervals in order to eliminate the knowledge deficiencies that teachers experience, if any, and to share issues related to physical, cultural and social conditions.

▪ As the grade levels increase, the level of inclusion of different intelligence types in the coursebooks should not be reduced.

▪ Researchers should not only go through theory in their studies on Multiple Intelligences Theory, but also should not neglect the opinions of teachers in the practical aspect of the work. The fact that the researchers do not neglect the opinions of the teachers will enable the relevant theory to be evaluated within the framework of the social, cultural, sociological and physical conditions of the country and that region.

Policy Implications

Educators find it very useful to use all disciplines to reveal students' intelligence areas and benefit from them in education. In other words, an interdisciplinary program approach should be taken in the program applications of the theory of multiple intelligences in the curriculum development process. For this purpose, the core curriculum approach (core curriculum) stands out and is recommended. In this approach, after learning common core subjects, students take courses in topics they are interested in their intelligence areas (Campbell, Campbell & Dickinson, 1996; Duran & Akdeniz, 2016, p. 754). Educators can individualize the curriculum in line with each individual's interests, needs, and potential through the theory of multiple intelligences because the idea of various intelligences teaches educators that all students have potential but that each learner is intelligent in different areas. In this respect, this theory is an effective model for understanding the individuality of each student and accordingly individualizing teaching (Saban, 2002, p. 70). It also increases diversity and inclusiveness in education and removes the "same model, same program for everyone" view from education (Fierros, 2004, p. 14).

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