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## About Editor(s)

Dr. Muhammed Zayyad

Special Education, Al-Qasemi Academic College of Education, Israel

Email: [zayyadmm@qsm.ac.il](mailto:zayyadmm@qsm.ac.il)

## Language Editor(s)

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Department of English Language Education, Suleyman Demirel University, Turkey

Email: [kaganbuyukkarci@sdu.edu.tr](mailto:kaganbuyukkarci@sdu.edu.tr)

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### **Aims & Scope**

Traditionally, it is seen that change and transformation in the field of social sciences takes a little more time compared to fields such as health, technology and engineering. However, this situation seems to have started to change with the Covid-19 epidemic disease. It is expected that changes will occur in human and social behavior during and after the Covid 19 epidemic disease. These changes have started to show themselves in many fields related to social sciences, especially education, psychology, sociology and economy. For this reason, **this conference focused on** the changes and innovations in the field of social sciences that started with Covid 19. However, the organizing committee also recognizes the value of traditional knowledge in the social sciences. For this reason, the conference is also open to traditional studies in the field of social sciences.

The **aim of the conference** is to bring together researchers and administrators from different countries, and to discuss theoretical and practical issues in all fields of social sciences. At the same time, it is aimed to enable the conference participants to share the changes and developments in the field of social sciences with their colleagues.

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**IconSE 2021: International Conference on Science and Education**

## **Determining the STEM Discipline Identities of Female Students**

**Salih GULEN**

Muş Alparslan University

**Ismail DONMEZ**

Muş Alparslan University

**Abstract:** Different meanings can be attributed to STEM education, which is the trend approach of recent years, by societies and individuals. In order to understand the STEM approach in the mind of the individual, it is necessary to learn the perspective of STEM education or STEM disciplines. It is necessary to determine the STEM identity of female individuals, especially because of the differences between men and women who prefer STEM professions or their perspectives on STEM disciplines. In this research, it is aimed to determine the identity of the disciplines of Science, Technology, Engineering and Mathematics in female individuals. Within the scope of this aim, 125 female students studying child development were reached. Data were collected online with a short-answer form. In this form, the reasons for being a scientist, technologist, engineer or mathematician were asked. As a result of the analysis of the data, it is understood that almost half of the participants stated that they wanted to be scientists and engineers, and nearly half of them stated that they could be technology experts. In addition, it was determined that very few of them believed that they could be mathematicians. When the reasons for these data are examined, it is understood that they determine their identities in these disciplines due to reasons such as love, interest, curiosity, research, intelligence, willingness, and using their imagination. Likewise, it is understood that they cannot choose these disciplines due to reasons such as fear, anxiety, competence and unwillingness.

**Keywords:** STEM education, STEM identity, women

### **Introduction**

STEM is an educational approach that emerged on the integration of science, technology, engineering and mathematics disciplines. It was born as a result of the technological and industrial competition of societies. The aim is to gain qualifications of individuals and indirectly to contribute to the economic welfare of societies. It is expected that individuals who make up the society will achieve success by using the identity of STEM disciplines in solving daily life problems. Regardless of gender, this success is expected to be achieved (Dönmez & Gülen, 2021; Hanson, & Krywult-Albanska, 2020).

One of the most popular goals of the STEM education approach is to establish gender balance. It is aimed that women and men have STEM disciplines and identities and gain STEM professions (Dönmez, 2021). In general, the STEM approach has emerged because the societies have low rates of choosing STEM disciplines, choosing a profession or creating a STEM identity. Although the goal of the STEM education approach is to increase this rate, it is thought that the increase in the STEM discipline identities of the female participants should be at the forefront. A lot of work is being done to support the attraction, retention and identity formation of STEM studies and careers around the world (McKinnon, 2020).

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STEM identities can be formed within the framework of social and cultural values, as well as the individual's own abilities, interests and role models (Gülen, 2019). When it comes to STEM disciplines in general, male occupations or identities are understood first. STEM occupations and identities in society are predominantly male (Sattari & Sandefur, 2018). This is due to the societal perspective. In fact, reasons such as women's preference for housework or being directed to housework affect this. In addition, it does not mean that women's work in societies, regardless of any discipline, has lost their duty in these household chores. Moreover, it is known that women with STEM disciplines have to deal with similar burdens. Women working in society should be given privileges in this regard (Xu, 2016). In addition to all these, it should not be forgotten that traditional gender norms have an impact on STEM identities (Vleuten, Steinmetz, & Werfhorst, 2019). For these reasons, various factors need to be taken into account in order to create the identity of women's STEM disciplines in societies. Gender inequality of women in society should be eliminated, especially in the formation of STEM disciplines and identity (Ro, Fernandez, & Ramon, 2021). In addition, STEM identity is not a subject that can be explained to women simply. This is a life problem to be motivated from an early age (Heybach & Pickup, 2017). Undoubtedly, the family and role models have a high impact on the formation of these identities (Boateng & Sharman, 2017). In general, women's inability to choose STEM disciplines is known (Hughes, Nzekwe, & Molyneaux, 2013). What is meant by inadequacy here is women's perspectives on these disciplines. Especially in the society where cultural and social reasons are intense, this should be prevented. Women need to recognize and internalize STEM disciplines (Carlone & Johnson, 2007; Gülen & Yaman, 2019).

Although the choice of STEM disciplines is often tied to academic success, it should be known that the belief or emotional state of the individual is effective in this (Dönmez, Gülen, & Ayaz, 2021; Sakellariou & Fang, 2021). Apart from academic success, internal and external factors affect the STEM identities of women or men (Sainz & Müller, 2017). These factors should be examined and women should be injured at similar rates to men. In addition, in the developing and industrializing society, it is necessary to look at the job opportunities of men and the job opportunities of women (Hagglund & Leuze, 2020). In these job opportunities, trainings or opportunities should be created by considering the qualifications of men and women. Activities that promote STEM and create identity in the society should be organized. Because women participating in STEM programs are more likely to choose a STEM discipline (Shahbazian, 2021). Considering that STEM disciplines are also used in daily life, it is thought that women can use these disciplines at the rate of men or interact with these disciplines (Schmuck, 2017). Although many purposes of the STEM education approach are to provide gender balance, it is important to determine the perspective of women on their STEM identities. Therefore, in this study, it is aimed to examine women's thoughts on the identities of STEM disciplines.

### **Purpose of the research**

The main purpose of this research is to determine the STEM discipline identities of female students studying in a child development program. For this purpose, answers to the following questions were sought.

A) What are the STEM discipline identities of the child development program students?

1. What are the reasons why students can or cannot be a scientist?
2. What are the reasons why students can or cannot be a technologist?
3. What are the reasons why students can or cannot be an engineer?
4. What are the reasons why students can or cannot be a mathematician?

### **Method**

Qualitative method was used in this study. In order to identify a particular research problem with its reasons, a phenomenological framework was preferred to determine the ideas and beliefs of the participants (Creswell & Plano Clark, 2015). Data were collected using a semi-structured interview form.

### **Sample**

All of the women participating in the research are continuing the child development program in the Malazgirt district of Muş province. There are 150 students in the child development program. Although all of them participated voluntarily, the data of 25 participants were not included in the analysis due to technical (internet, telephone) failures and missing data. In this context, the answers given by 125 female students studying child



development to the scale were accepted by creating a purposeful sample. It was determined that 95% of the participants were of similar socio-economic level (father a farmer, mother a housewife and all from eastern and southeastern provinces).

### **Data collection tool**

A semi-structured interview form was used in the research. This form was integrated into the online environment, enabling data to be collected online. The data collection tool prepared by the researchers basically consists of four questions. In addition, when asked about the reasons to be given to these questions, the number of questions increases to eight. For example, "I can/can't be a scientist. Why;" The participant who chose the first part of the question then writes the reason for the choice. A similar situation applies to Technology, Engineering and Mathematics (Appendix 1).

### **Analysis of Data**

Since all data were collected online, they were transferred to Microsoft Excel Program and analyzed. Although there is a content analysis, the origin of participant answers is shown with quantitative data. As a matter of fact, presenting qualitative data by digitizing is important for the reader (Yıldırım & Şimşek, 2013).

### **Results**

When the answers given by the participants were examined, the table and quotations presented below were obtained. In Table 1, the statuses of STEM disciplines regarding their identities are given.

Table 1. STEM disciplines identity preferences

Preference	Scientist		Technologist		Engineer		Mathematics	
	f	%	f	%	f	%	f	%
Can be	64	51.20	56	44.80	62	49.60	38	30.40
Can't be	61	48.80	69	55.20	63	50.40	87	69.60

As can be seen in Table 1, the preferences of the participants towards STEM disciplines are seen. According to this, it is understood that the participants have preferences about being a scientist, technologist and engineer by half. However, it is understood that 69.60 % of the participants expressed a negative opinion towards the discipline of mathematics. Along with this table, the themes and categories created as a result of the analysis of participant responses are presented below.

### **Theme 1. Identity of Women in STEM Disciplines**

There are four categories under this theme. Analyzes with random quotations from the views of the participants are presented below. Quotations were coded as there were no participant names (encodings were assigned to participant=P and numerical numbers were assigned to be different from each other).

#### *Category 1. I Can / Can't Be a Scientist*

When the answers given by the participants in this category were examined, 51.20% of them stated that they could be scientists. Examining the quotes below;

*I like to do research (P2)*

*I always think about discovering new things why things happen, why they happen. I like research to deal with things (P50).*

*Because I am open to science and innovation, I like to discover new things, so I can be a scientist.*

*Nothing is impossible after we believe and want it (P75).*

*Because: I am interested in discovering new things and collecting information (P79).*

*I enjoy doing scientific and experimental work and learning new concepts (P102)*

*Because: I love doing research. I am good at problem solving, very confident in my guesses (P115).*

According to the quotations, it is understood that the participants stated that they could become scientists because they wanted to “gather information”, learn “new concepts” with “scientific and experimental” works, “solve problems” and make “predictions” based on data, and make “discoveries” with situations such as “reasons”. It is understood that the participants want to be scientists because they want to make new discoveries by estimating with relationships such as experimenting, problem solving, cause and effect. According to this, it is understood that less than half of the participants could be scientists. It was also determined that 48.80% of the participants stated that they could not be scientists. Examining the following quotations;

*I do not like research (P32)*

*Science is not a field to be taken lightly. Research and observe all aspects of it. He does research. Scientists have the ability to observe things (P44).*

*Curiosity for knowledge, the effort to understand the universe, and the inability to be content with what they know, and the desire to learn more are an innate desire. It does not just about want to be (P51).*

*A very stressful and tiring job does not lift my body (P69).*

*Because I think scientists have a certain level of intelligence (P110).*

*Because I don't think I can be as patient as those people and try again and again when my attempts fail (P117).*

*I am not very curious (P120).*

According to the quotations, it is understood that the participants stated that they “do not like research”, research “should be done in all aspects”, “observation should be made”, a “certain level of intelligence and patience” is required, innate “curiosity” is “not just willing”, and they cannot be a scientist because it is a “stressful and tiring” work area. From this, it is understood that scientists have an innate curiosity, patience and intelligence. It is understood that the participants do not want to be scientists because they do not have enough intelligence, patience, curiosity, love to research, and observation. In addition, the category obtained from the answers given by the participants regarding the technology identity is presented below.

#### *Category 2. I Can / Can't Be a Technologist*

When the answers given by the participants under this category were analyzed, it was determined that 44.80% of them stated that they could be technology experts. When the citations for this break, which is less than half of the participants, are examined;

*I have a desire to produce the features that should be in some technology tools myself (P12).*

*I'm too lazy to use a school bag. I would like to make a school bag with me that can help me with my steps (P59).*

*I would like to work for what will benefit people (P77).*

*Everything related to technology excites me. I like to explore. Thanks to technology, I can easily find new things (P92).*

*I would be happy to invent and introduce new things (P97).*

*I am interested in technological tools and subjects related to technology (P105).*

The participants stated that they could become technology experts because of the reasons such as “carrying the school bag”, wanting to make the “features of the technological devices” themselves, “excitement”, “curiosity”, “happiness” feelings created by technology and making inventions for the “benefit of humanity”. In general, it is understood that the participants want to be technology experts because it provides desire, excitement, curiosity and happiness. Despite all this, it is understood that more than half of the participants (55.20%) do not want to be technology experts. Examining the following quotations;

*Because you are surrounded by too much technology, your only mistake can turn into a huge problem (P49).*

*I am a person with the capacity to do what I see well with the Internet. I can gather information. However, I have no desire to do technology (P56).*

*I don't believe myself about that (P81).*

*I like the innovations of technology, but I do not find myself competent in the field of design (P113).*

*I'm not good with metal tools (P118).*

From the quotations above, it was stated that the participants could not become a technology expert due to reasons such as being “*afraid*” of causing huge problems due to the “*mistakes*” that could be made, lack of “*desire*” to deal with technology, “*not believing*” in themselves, being inadequate in technology-related designs and not “*liking metal tools*”. In general, it is understood that the participants stated that they cannot become a technology expert due to reasons such as fear, not wanting, not believing, not loving and seeing themselves as inadequate in the field of technology. Apart from these, the following category is formed when the citations of the participants regarding their engineering identities are examined.

### *Category 3. I Can / Can't Be an Engineer*

In this category, almost half of the participants (49.60%) stated that they could be engineers. When these expressions are examined;

*Depending on the field, I can't actually be a technology engineer, mechanical engineer, but I can be a food engineer, civil engineer or chemical engineer. I like doing numerical operations and researching (P9).*

*Because my imagination is wide and I try very hard to put forward what I want, I don't give up when a problem arises; I like to make new breakthroughs in order to solve that problem (P31).*

*It could be because of the fact that engineering branches are different and all of them are very important today and because of my interest in mathematics (P63).*

*I can be. Because: I love innovations. In my opinion, such a thing in being an engineer is putting forth new things and striving for it (P84).*

*I see that capacity in myself, I can be like everyone else (P124).*

Although the participants have “*different*” engineering branches, it is understood that they can become engineers for reasons such as doing “*numerical operations*” and research, using their “*imagination*” to “*solve problems*”, loving “*innovations*” and self-confidence. In addition, it is understood that liking the discipline of “*mathematics*” also affects the engineering identity. In general, it is understood that half of the participants stated that they could become an engineer because of their ability to do numerical operations, their desire to use their imagination, their love of innovations and their self-confidence. Apart from these data, it was determined that the other half of the participants (50.40%) stated that they could not be engineers. According to this;

*I do not like research (P21).*

*I don't think it's a profession for me (P38).*

*I am not inclined to produce things (P59).*

*I don't like it, I'm afraid of that part (P96).*

*I am not interested because it is outside of my field of interest (P108).*

As it can be understood from the quotations, it is understood that the participants stated that they cannot become an engineer because they “*do not like research*”, “*are not inclined to produce*”, have “*fear*” and “*no interest*”, and “*do not see engineering as a profession*”. In general, it is understood that the participants do not want to be an engineer because of their indifference, fear, dislike of research and their profession perceptions. Finally, when the mathematics discipline identity of the participants is examined, the following category is obtained.

### *Category 4. I Can / Can't Be a Mathematician*

Within the scope of this category, it is understood that a small part of the participants (30.40%) want to be a mathematician. When the citations are examined;

*I both love it very much and find a practical solution (P5).*

*I could be because of my interest and love for mathematics (P12).*

*I love numbers. I love getting lost in numbers. I struggle for hours (P36).*

*Even if it is difficult, mathematics is actually fun for me (P47).*

*I love math and I can do it when I listen. In a way, it happens when you want it (P58).*

*Because: I have a fascination with mathematics (P94).*

It has been determined that there is an admiration for mathematics due to reasons such as the participants' "love" of the discipline of mathematics, their "interest" in mathematics, its "practicality", "dealing with numbers" and it's "fun". In general, it is understood that a small part of the participants stated that they might prefer the discipline of mathematics due to their interest, love, admiration and the fact that mathematics is fun with numbers. Apart from these, it is understood that the majority of the participants (69.60%) stated that they could not be mathematicians. According to this;

*Fear of never being able to do math (P3).*

*I don't like this lesson. I cannot do it (P11).*

*I don't like to calculate (P22)*

*I definitely can't. Because: I don't have a mathematical acumen. That's why it never interests me (P37).*

*I like math, but I wouldn't lock myself into the world of numbers. I mostly like to make my own paintings using my creativity and to be free (P41).*

*Although I hate math class, I avoid anything related to math (P62).*

*Since I am not very good with numbers, I have difficulty in coming to a conclusion after (P97).*

*I can't go after a job I don't like. I couldn't be a mathematician because I don't like math. Even if I were, I wouldn't do it happily (P100).*

According to the quotations, it is understood that the participants stated that they cannot become a mathematician due to reasons such as "not liking" mathematics, being "afraid", "not having mathematical intelligence", having "difficulties" and showing "interest in different professions". In general, it is understood that the majority of the participants stated that they could not be a mathematician because they did not like mathematics, had difficulties and were afraid of mathematics.

Looking at the general results of this theme, it is understood that half of the participants want to be scientists and engineers, and nearly half of them say they can be technology experts. In addition, it was determined that very few of them believed that they could be mathematicians. When the reasons for these data are examined, it is understood that they determine their identities in these disciplines due to reasons such as love, interest, curiosity, research, intelligence, willingness, and using their imagination. Likewise, it is understood that they cannot choose these disciplines due to reasons such as fear, anxiety, competence and unwillingness.

## **Discussion**

The data collected in determining the identities of women in STEM disciplines were interpreted. Accordingly, it can be said that half of the participants can be scientists, technologists and engineers. However, it is understood that the majority of the participants expressed a negative opinion about the identity of the discipline of mathematics. Prejudice or emotional traumas towards the discipline of mathematics are thought to be effective in this (Delaney & Devereux, 2021). In addition, it is thought that this preference, which is half of the participants' scientist, technologist or engineer identities, can be increased. It is thought that STEM education, STEM camps or science centers will be effective in this (Dönmez, 2021; Hughes, Nzekwe, & Molyneaux, 2013).

When the reasons for the identities of the participants towards science, technology and engineering are examined, it can be said that the reasons related to love, interest or talent are stated rather than social and cultural factors. According to this, it can be said that less than half of the participants can become scientists because they want to make experiments, solve problems, make guesses by establishing a cause-effect relationship and make new discoveries. It can be said that the rest of the participants do not want to be scientists because they do not have enough intelligence, patience, curiosity, love of research, and observation. Similarly, Fisher, Thompson, and Brookes (2020) determined in their study that the most obvious reasons why women prefer STEM disciplines or have low STEM identities are low self-efficacy and gender differences in science identity. However, in some studies, it has been determined that women are more autonomous in science (Modrek et al., 2021).

For the identity of a technology expert; It has been determined that the participants want to be a technology expert because it provides desire, excitement, curiosity and happiness. On the other hand, it is understood that the participants stated that they cannot be technology experts due to reasons such as fear, not wanting, not

believing, not loving and seeing themselves as inadequate in the field of technology. However, gender has a significant effect on technological and robotic STEM education attitude (Küçük & Şişman, 2020; Gülen, 2019). Today, there is no education or thought left without technology. While half of the participants find themselves sufficient in this regard, the other halves have negative thoughts about it. In this regard, it is thought that career days and role models can develop positive emotions (Dönmez, 2021).

When the reasons for the engineer's identity are examined; it is understood that half of the participants stated that they could be an engineer because of their ability to do numerical operations, want to use their imagination, love innovations and self-confidence. However, it can be said that the other half of the participants do not want to be an engineer because of their indifference, fear, dislike of research and their profession perceptions. Although the research findings suggested emotional reasons, it is known in the studies of Vleuten, Steinmetz, and Werfhorst (2019) that women from societies with traditional gender norms are also affected by their friend environment, and therefore STEM identity is greatly reduced. In addition, the fact that male-oriented job opportunities are at the forefront in the industrialized society is thought to have an effect on this (Hagglund & Leuze, 2020).

When the data for mathematical identity is analyzed; It is understood that a small part of the participants stated that they might prefer the discipline of mathematics for reasons such as their interest, love and admiration for the discipline of mathematics and the fact that mathematics is fun with numbers. However, it is understood that the majority of the participants stated that they could not become a mathematician because they did not like mathematics, had difficulties and were afraid of mathematics. As a matter of fact, Sakellariou and Fang (2021) determined in their study that women's careers in STEM disciplines depend on their abilities in mathematics discipline. Identity formation and achievement in STEM disciplines are largely linked to the discipline of mathematics. In addition, Delaney and Devereux (2021) determined in their study that ranking high in mathematics increases the probability of choosing STEM and decreases the probability of choosing Arts and Social Sciences.

It is known that the level of interest in STEM increased after students got to know STEM and created awareness. It is known that the implementation of STEM activities contributes to the increase of STEM career interest. It has been determined that the increase in the individual's STEM career preferences is in parallel with the increase in in-out of school activities (Dönmez, 2021). In this context, women need to get to know STEM, create a STEM identity and learn about occupational groups. In general, there is a relationship between gender and STEM disciplines. There are subtle nuances between women's recognition of STEM disciplines and their identity formation (Farrell & McHugh, 2020). The influence of women's close circles in the formation of STEM identities is high. It affects the formation of role model STEM identities from family members and relatives from the STEM discipline (Boateng & Sharman, 2017). It is also known that STEM programs implemented in science centers, STEM schools or practice centers can increase the likelihood of women choosing a STEM discipline (Shahbazian, 2021).

## **Conclusion and Recommendations**

It was determined that half of the women stated that they could be scientists, technologists (technologists) and engineers, but only a few of them identified with mathematics. They stated that half of the women can become scientists because they can produce new things with various scientific activities, but the other half will not be scientists because they do not have the qualities such as patience, curiosity, love of research, and observation. Similarly, technology identities are formed because half of women provide desire, excitement, curiosity and happiness. On the contrary, they have chosen to stay away from technology for reasons such as fear, not wanting, not believing, and not loving. Again, for the engineer identity, it was determined that half of the women could become engineers for reasons such as using their imagination, loving innovations and self-confidence. In addition, it can be said that the other half do not want to be an engineer because of their indifference, fear, dislike of research and their profession perception. Finally, it is understood that while a small part of women create an identity because of their love, interest and admiration for mathematics, the majority of them do not like mathematics, have difficulty and stay away from this identity because they are afraid of mathematics.

It is understood that women form STEM discipline identities for emotional reasons other than social and cultural reasons. First of all, the causes of these emotional states should be investigated and measures should be taken for negative ones. In the research, it is understood that half of the participants can be scientists, technologists and engineers. First of all, the source of the emotions, which is the reason for the absence of the other half,

should be investigated. In addition, it is understood that the majority of women do not want to create an identity for the discipline of mathematics due to fear, difficulty or dislike. The reasons for this situation are important. Reasons for dislike, fear or difficulty in mathematics should be investigated.

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The authors declare that the scientific ethical and legal responsibility of this article published in EPESS journal belongs to the authors.

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## Appendix 1.

- 1) I am a scientist
  - a) Can be
  - b) Can't be
  - 1.1) Why;
- 2) I am technologist
  - a) Could/could be
  - b) Couldn't/couldn't be
  - 2.1) Why;
- 3) I am engineer
  - a) Could/could be
  - b) Couldn't/couldn't be
  - 3.1) Why;
- 4) I am a mathematician
  - a) Could/could be
  - b) Couldn't/couldn't be
  - 4.1) Why;

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### Author Information

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**Salih GULEN**

Muş Alparslan University  
Muş, Turkey  
Contact e-mail: [sgnova@windowslive.com](mailto:sgnova@windowslive.com)

**Ismail DONMEZ**

Muş Alparslan University  
Muş, Turkey

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**IconSE 2021: International Conference on Science and Education**

## Evaluation of Physical Education Teacher's Opinions on the Field Exam

**Fikret ALINCAK**  
Gaziantep University

**Abstract:** The concept of teaching is a profession whose value will never decrease with its meaning and responsibility. Teaching and raising people requires great skill. A long and arduous road awaits newly appointed teachers. Various changes have been made in our country recently regarding the appointment of teachers. Due to the difference between the number of teacher candidates graduating from education faculties and the number of teacher candidates to be appointed by the Ministry of National Education (MEB) in line with the needs, different practices were applied in the way of selecting and appointing teachers during the change periods. Therefore, it is seen that teacher candidates face different problems in this process. The aim of this study is to reveal the opinions of physical education teacher candidates about the field exam. The research is a qualitative study. The research group consists of 20 physical education teacher candidates and this study group was determined by the maximum diversity sampling method. In the research, face-to-face interview technique was used on a voluntary basis with 20 physical education teacher candidates studying at Gaziantep University Faculty of Sport Sciences. In the research, using the interview method, which is one of the qualitative research methods, the data obtained were analyzed by the content analysis method. As a result of the research, it was stated that physical education teacher candidates considered the field exam as boring and tiring. In addition, although the research group generally saw the field exam negatively, it was concluded that the exam was an exam that created anxiety and stress.

**Keywords:** Physical education, Pre-service teacher, Field exam

### Introduction

While general culture, general talent, and educational sciences exams were applied in teacher appointments and the assignment was made according to the scores obtained, a new exam application was introduced to the system in 2014. This new exam application is under the name of field exam; specific to the teaching branch in which the teacher candidates study at the faculties of education; It is an exam in which the knowledge of the relevant teaching field is measured. The physical education teacher exam started to be implemented in 2019. It is important to determine the opinions and thoughts of teacher candidates about the field exam, which is 50% determinant of the selection and appointment process after graduation.

The realization of an effective teaching depends on the instructor having sufficient knowledge about the subject and transferring this knowledge to the learner by using appropriate methods and techniques (Erdem & Soyulu, 2013). Hollins (2011) teaching; He expresses having a deep knowledge as a multi-faceted and complex process that requires synthesizing, integrating and employing this knowledge under changing conditions, against different groups and individuals. One of the factors that affect the efficiency of this process is how equipped the teachers are during their university education. Therefore, university education is very important for teacher candidates to be successful in their professional life. The main purpose of effective teacher selection is to perform effective teaching activities by choosing the right teaching staff (Eraslan, 2004).

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There are many studies in the literature on the content of the Public Personnel Selection Examination (KPSS) applied in our country, the validity of its scope, the way it plays a determining role in teacher selection and appointment, and determining the opinions of teacher candidates about the exam (Gündoğdu, Çimen & Turan, 2008; Atav & Sonmez, 2013; Elçiçek, Tösten & Kılıç, 2012).

From this point of view, the aim of this research is to determine the perceptions of physical education teacher candidates about the field exam that has been put into practice since 2019. It is thought that the findings of this research will contribute to the application in the new system. In this context, answers to the following questions were sought.

1. What are the opinions of physical education teacher candidates about the field exam?
2. What are the opinions of physical education teacher candidates about how the field exam should be done?

## **Method**

Qualitative research is defined as research in which qualitative data collection methods such as observation, interview and document analysis are used, and a qualitative process is followed to reveal perceptions and events in a natural environment in a realistic and holistic way (Yıldırım & Şimşek, 2011). The research design is Phenomenology, one of the qualitative research designs. The phenomenology design focuses on phenomena that we are aware of but do not have an in-depth and detailed understanding of. In the research, the interview method was used as it would be effective in obtaining more detailed and detailed information about the opinions, approaches and comments of the physical education teacher candidates about the field exam (Yıldırım & Şimşek, 2011).

## **Research Group**

In the research, the opinions of physical education teacher candidates about the field exam were examined. For this purpose, the study group of the research consists of physical education teacher candidates studying at Gaziantep University Faculty of Sport Sciences. Maximum variation sampling, which is one of the purposive sampling methods, was used in the selection of the study group. The data about the research group are given in Table 1.

Table 1. Personal characteristics of the research group (n= 20)

Variables	Groups	n	%
Gender	Male	12	60
	Woman	8	40
Class of Study	1	5	25
	2	5	25
	3	5	25
	4	5	25
	2.00-2.49 between	2	10
Academic Grade Point Average	2.50-2.99 between	6	30
	3.00-3.49 Between	8	40
	3.50 and over	4	20

When Table 1 is examined, 60% of the participants are male physical education teacher candidates and 40% are female physical education teacher candidates. Accordingly, the majority of the participants are male physical education teacher candidates. It is seen that 25% of the participants are 1st grade, 25% 2nd grade, 25% 3rd grade and 25% 4th grade physical education teacher candidates. When we look at the academic grade point average of the participants; 10% have an average between 2.00-2.49, 30% have an average between 2.50-2.99, 40% have an average between 3.00-3.49, and 20% have an average of 3.50 and above.

## **Preparation and Application of the Open-Ended Questionnaire**

In the research, a semi-structured interview form consisting of items was used to collect qualitative data. Through the interview technique, which is frequently used in qualitative research, the researcher tries to understand unobservable situations such as attitudes, experiences, intentions, thoughts, mental perceptions,

comments and reactions (Yıldırım and Şimşek, 2011). In order to develop the form to be interviewed, a comprehensive literature review was conducted and the interview form was prepared. While preparing the semi-structured interview form, which is used as a data collection tool, a field survey was first conducted by the researcher and a semi-structured interview form question pool was created, which includes questions that can be asked to the security forces regarding the subject. Then, the questions created by three experts were examined and the semi-structured interview form was finalized. None of the participants included in the study were compelled to participate in the research, and the principle of confidentiality was meticulously complied with during the application and collection of the questionnaires. The interviews were recorded with a voice recorder and then these recordings were transcribed.

## **Analysis of Data**

The data obtained from the interview form used in the research were recorded with a voice recorder. Then, qualitative data were analyzed by content analysis method. Content analysis technique, which is frequently used, was used in the analysis of the data obtained from the questions in the interview form. (Yıldırım and Şimşek, 2011).

## **Findings and Interpretation**

In this section, there are findings related to the data obtained after the interviews with the working group. While giving direct quotations from the interviews, the sequence number given in the participant list is added before the quotations to indicate which participant these quotations belong to.

Table 2. Distribution of physical education teacher candidates' opinions about the field exam.

Themes	n	%
An unnecessary app	18	29.1
Intense and boring app	16	25.8
The content is quite poor	15	24.2
Lessons learned in undergraduate	13	21
Total	62	100

In Table 2, almost all of the physical education teacher candidates participating in the research stated that the field exam was unnecessary and at the same time stated that it was intense and boring. In addition, some pre-service teachers stated that the field exam was insufficient in terms of content and that the courses they took under the license were insufficient.

Table 3. Distribution of physical education teacher candidates' views on how the field exam should be conducted.

Themes	n	%
It should be done practically	16	32
Courses in our field should be divided into	14	28
Must be done at the end of each year	13	26
It should be done in a single session	7	14
Total	50	100

In Table 3, the majority of the physical education teacher candidates participating in the research stated that the field exam should be applied. When the participants were asked how the field exam should be done; 28% of them stated that the courses should be divided and 26% stated that they should be held at the end of each year. In addition, some of the physical education teacher candidates who participated in the study stated that the field exam should be done in a single session.

## **Results and Discussion**

In this part of the research, the results obtained depending on the findings obtained with the aim of examining the opinions of the physical education teacher candidates about the field exam are given.

While almost all of the physical education teacher candidates participating in the study stated that the field exam was unnecessary, they also stated that it was intense and boring. In addition, some pre-service teachers stated that the field exam was insufficient in terms of content and that the courses they took under the license were insufficient. In different studies, it has been observed that teacher candidates have a negative attitude towards the exam (Eraslan, 2004; Gündoğdu, Çimen, and Turan, 2008; Sezgin and Duran, 2011; Şahin and Arcagök, 2011; Nartgün, 2011; Tösten, Elçiçek and Kılınç, 2012; Atav and Sönmez, 2013).

The majority of the physical education teacher candidates participating in the research stated that the field exam should be applied. When the participants were asked how the field exam should be done; 28% stated that the courses should be divided and 26% stated that they should be held at the end of each year. In addition, some of the physical education teacher candidates who participated in the study stated that the field exam should be done in a single session.

Sergeant-Sahin et al. (2015) stated in their study that the courses given in the undergraduate program did not meet the field exam. In other words, they stated that the courses they took in the undergraduate program were insufficient to meet the field exam. However, some of the participants stated that some of the courses given in the undergraduate program are practice-oriented and these courses are not included in the content of the field exam. A similar result emerged in the study of Atav and Sönmez (2013) in which they tried to determine the opinions of prospective teachers about KPSS.

## **Conclusion**

As a result of the research, it was stated that physical education teacher candidates considered the field exam as boring and tiring. In addition, although the research group generally saw the field exam negatively, it was concluded that the exam was an exam that created anxiety and stress.

## **Recommendations**

Whether the subject and question distribution of the physical education teacher field exam are adequately met within the framework of teaching profession knowledge on the basis of field should be reviewed should be passed.

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## **Scientific Ethics Declaration**

The author declares that the scientific ethical and legal responsibility of this article published in EPESS journal belongs to the author.

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### Author Information

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**Fikret ALINCAK**

Gaziantep University Faculty of Sports Sciences, Gaziantep,  
Turkey

Contact e-mail: [alincakfikret27@gmail.com](mailto:alincakfikret27@gmail.com)

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**IconSE 2021: International Conference on Science and Education**

## **Integrating STEM in to TVET Education Programs in QATAR: Issues, Concerns and Prospects**

**Ziad SAID**

College of the North Atlantic - Qatar

**Abstract:** Qatar TVET education system faces unique challenges in that the percentage of vocational secondary school students constitute only 1.4% compared to world average of 15% due to the poor perception of TVET as lesser pathway than other academic-based education. This low perception is associated with sociocultural, economic and institutional factors. Another challenge is the poor link between vocational and general education and the link to labor market. Further challenge is how TVET institutions can develop new curricula, which can respond to the needs of the 21<sup>st</sup> century skills. This paper will discuss how STEM can help promote TVET education and what are the possible changes required to overcome those challenges. A survey on “Improving and enriching the Human Capital of the State of Qatar through Identification and Development of 21<sup>st</sup> Century Skills”, explored perceptions of both employers and TVET program leaders toward the skills needed for economic and social developments in a changing world by Meeting Human Capital Needs through 21<sup>st</sup> Century Skills including the perceptions on needed STEM and cognitive skills. A total of 85 managers and professionals (from more than forty establishments) completed the survey, together with 35 TVET program leaders located in one national university and six government TVET institutions together with 32 semi structured interviews. Descriptive statistics analysis showed a major mismatch between the perceptions of TVET program leaders and employers’ managers and professionals in many aspects., employers perceive the social skills as more important while TVET consider mathematical reasoning as more important employers perceive technological skills such as digital literacy as more important than what TVET leaders perceive. This presentation will identify several approaches to integration and discuss the advantages and disadvantages of the approaches employed. The presentation addresses the various planning approaches and resources required to effectively integrate STEM in TVET programs and curricula.

**Keywords:** TVET, STEM, Digital Literacy, Skills Gap, Integrative STEM, Curriculum

### **Introduction**

Qatar’s growing economy has high growth rate in both economic and social development. Qatar National Vision 2030 (QNV 2030) emphasizes the importance of knowledge and skills of its citizens to achieve a knowledge-based economy. Qatar, however faces a variety of skills shortages and education must take the challenge to develop programs to meet these needs and promote the acquisition of the 21<sup>st</sup> century skills that are necessary for students to master in order to succeed in work and life.

TVET (Technical and Vocational Education and Training) programs are very important to prepare students and adults for a wide range of skills that are demanded in the labor market which are oriented around science, communications, information and engineering technology. Demand for these competencies is increasing all over the world with wide range of education and training skills in knowledge technologies such as software systems, knowledge management e.g. data mining and retrieving, modeling, simulation, 3D printing, etc. participation of students in technical and vocational education programs in Qatar is among the lowest compared to other countries standing at a total of about 1% of secondary school students only (UNESCO 2020).

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STEM (Science, Technology, Engineering and Mathematics) is integral to many of the required knowledge and how they are integrated is a new 21<sup>st</sup> century skills that TVET students should acquire. The understanding of STEM components and how they are connected helps students develop better and deeper understanding of their TVET program contents. However, STEM is still taught in a traditional approach i.e. in silos which only refers

As Qatar diversifies its economy, there is an increasing emphasis, in higher education, on subjects that propel a knowledge economy, such as math and science. One among the key challenges to tackle to achieve QNV2030 as stated in Qatar National Strategy Development 2011- 2016 is: *Raising the achievement of Qatari students at all levels, especially in math, science and English and, through that, increasing educational attainment*" (p.124). For a transition to a knowledge-based economy to take place in a relatively short period, a truly exceptional educational system is required. More specifically, it's Science, Technology, Engineering & Mathematics (STEM) education that must be uniquely exceptional to forge graduates who will be active and meaningful contributors to this new economy. In short, without excellence in STEM education, one of the main goals of QNV 2030 simply will not take place.

Third National Human Development Report NHDR (2012) stated: *"declining enrolment in science and mathematics needs to be reversed to better fulfill the needs of knowledge-based economy industries"* (p.52). Second Qatar national strategy 2018-2022, call for increasing average score of Qatari students in PISA and TIMMS by 30 points in each cycle and the MEHE strategy 2017-2022 put an ambitious target of an average score of 500 points by 2022 (currently it is 418 in PISA and 423 in TIMMS).

Qatari students' performances in international tests such as PISA and TIMMS that assess skills in science, mathematics and readings, have significantly improved over the last decade as was reflected in the published results of these tests (Said, 2016; Said et al., 2018).

In high quality advanced TVET programs today, the 21<sup>st</sup> century skills require more rigorous content than traditional TVET curriculum provides. They should include skills and knowledge required for these competencies such as critical thinking, problem solving, effective communication and collaboration, project-based learning with high technology skills. STEM is integral to many of the required knowledge and how they are integrated is a new 21<sup>st</sup> century skills that TVET students should acquire. The understanding of STEM components and how they are connected helps students develop better and deeper understanding of their TVET program contents. However, STEM is still taught in a traditional approach i.e. in silos which only refers to science and math with little reference to engineering and technology. Therefore, those involved in development of TVET curricula and teaching TVET programs must also gain a good understanding of STEM and STEM education.

What distinguishes STEM from traditional science and math education is the blended learning environment that is centered on teaching students how the scientific method can be applied to everyday life by connecting learning to outside the classroom and using technology to engage students in scientific and engineering practices and projects that require deep science and math conceptual knowledge.

There is a particular need in Qatar for educators, employers and government to promote and to include 21<sup>st</sup> Century skills in curricula, workplace training programmes and policies. The second National Development Strategy, NDS-2 (2018-2022) identified the importance of 21<sup>st</sup> century competencies for life and employability and defined it as the *"... Range of knowledge, skills, attitudes, and personal qualities believed to play a crucial role in success in today's world, especially in higher education programmes, modern professions and workplaces. Generally speaking, the 21st century competencies can be applied to all disciplines of academic and educational knowledge, functions and civil frameworks throughout the student's life."* (Ministry of Development Planning, 2018).

21<sup>st</sup> Century skills have been identified as central to the development of human capital for the diversified, green knowledge economy envisaged in Qatar National Vision 2030 and related strategies for education and training by Ministry of Education and Higher Education. In addition to embedding QNV 2030 values, principles and goals with related subject areas, the NDS-2 cited the need for the contribution of all partners in the education process.

However, the challenge has been that these skills are not well integrated within education and training. Few assessment policies or practices are in place to assess them in many countries. UNESCO argues to focus on the five pillars of education in the Twenty-First Century. They are *learning to know; learning to do; learning to be; learning to live together and "learning to transform society and change the world including the skills and*

knowledge needed to work collaboratively for community well-being, social development, peace, and the transition to a low carbon economy and sustainability” (UNESCO 2014).

### **TVET and Applied Learning in Qatar and the challenging role of TVET**

TVET programs are very important to prepare students and adults for a wide range of skills that are demanded in the labor market which are oriented around science, communications, information and engineering technology. Demand for these competencies is increasing all over the world with wide range of education and training skills in knowledge technologies such as software systems, knowledge management e.g. data mining and retrieving, modeling, simulation, 3D printing, etc. According to UNESCO report: Education for People and Planet (UNESCO 2016), participation of students in technical and vocational education programs in Qatar is among the lowest compared to other countries standing at a total of 0.9 % of secondary school students only.

Qatar has 7 secondary vocational schools (1 technical, public for boys, 1 technical public for girls, 2 business and banking 1 for boys and one for girls both public, one school, international private co-education (Debakey and 2 STEM schools public, one for boys and other for girls). There are six postsecondary universities and colleges, which provide TVET graduates, four public and three international including American, Dutch, and a Canadian universities (Ministry of Education and Higher Education 2018).

In addition, a professional training center is located in Qatar petroleum, which supplies the energy sector with trained workforce (secondary school graduates) to meet the increasing demand of the sector in both technical and administrative fields by offering specific internationally recognized vocational programs to assume technical and administrative jobs at QP and its subsidiaries (Qatar Petroleum n/d).

One factor contributing to the skill shortage is that oil and gas production, the main economy sector, uses increasingly advanced technologies and production techniques, which require a workforce with a continually increasing level of skills. Demand for skilled workers at the higher end of the skills range is rising very fast. However, these are the professions where the skills shortage is the largest. Employment of semi-skilled local workers has been declining as the demand for higher skills has increased (Fien and Guevara 2013). High level of STEM knowledge is the basis for such skills.

Qatari students’ performances in international tests such as PISA and TIMMS that assess skills in science, mathematics and readings, have significantly improved over the last decade as was reflected in the published results of these tests (Said, 2016; Said et al. 2018 & OECD 2019). However, despite this progress, these results are still below the average of the participating countries in those tests.

#### *Scope of this Study*

Low levels of engagement between industrial and educational institutions continues to prevent curriculum improvement and development of industry-relevant curricula. Linkages between Qatar’s industry and post-secondary education are not strong enough and often give rise to neglected or duplicated human capital development. Therefore, most development efforts of human capital occur in isolation involving outmoded programs with many faculty complacent and unaware of new technologies and developments in relevant industrial sectors.

Part of this project, was a survey on “Improving and enriching the Human Capital of the State of Qatar through Identification and Development of 21<sup>st</sup> Century Skills”, explored perceptions of both employers and TVET program leaders toward the skills needed for economic and social developments in a changing world by Meeting Human Capital Needs through 21<sup>st</sup> Century Skills. A total of 85 managers and professionals completed the survey, together with 35 TVET program leaders located in one university and five government TVET institutions (the survey was adapted to fit the context of TVET institutions). Thirty-two industry managers and professionals were from Hydrocarbon and Energy, 26 from Built & Environment and 27 from Banking & Finance sectors. Furthermore, 32 semi-structured interviews were conducted.

## **Method**

The survey titled “Improving and enriching the Human Capital of Qatar Through Identification and Development of 21<sup>st</sup> Century Skills” was distributed online to more than 50 TVET program leaders and 150 senior managers and professional employees from different companies and enterprises in three sectors specifically

- Hydrocarbon and Energy sectors
- Built and environment sector
- Finance and banking sector

35 responses received from TVET sector and 85 from industry sectors among them 32 from Hydrocarbon and energy sector, 27 from Built Environment sector, and 26 from financial service sector. In addition to 32 semi-structured interviews.

This survey was intended to explore the perception of both industry employers and TVET program leaders toward the needed skills for economic and social developments in a changing world by meeting Human Capital Needs through 21<sup>st</sup> Century Skills.

The survey was divided into six sections, four major sections, in addition to a section on demographic information about the person filling the survey and his/her company or institution (section-1), and another section for general comments and open ended questions (section-6). The survey was a structured questionnaire with both close and open-ended questions. Responses to statements were chosen either on a 5-point Likert-type scale (ranging from 1-very unimportant /very insignificant to 5-very important/strongly significant, section-1); or on a 4-Likert scale (section-2) with one section includes multi answers. The surveys were translated to Arabic using the back-translation method.

The six sections of the survey are:

1. Information about the surveyed, and the company
2. Drivers of Changes
3. Environment, Social, Health and Safety planning and practices
4. Skills Required for/and in, the Workplace
5. Training, Research and the Changing World of Work
6. General comments

This paper will discuss responses relevant to the subject of this paper mainly sections 4, and 5.

## **Results and Discussion**

### **Skills Required in the Workplace**

Data collected from the survey were analyzed using SPSS software version 24. Selected quotations are added to give more insights on the perceptions of the respondents from both groups.. Table-1 summarizes the descriptive statistics of findings from both employers and TVET. Effect size factor (ES) is used to compare the perceptions and practices of employers with those of TVET providers although statistical significance (p-value) is also used as an approximate indicator to the existing difference because when a difference is statistically significant, it does not necessarily mean that it is very important, or helpful in decision-making. It simply means that we are confident that there is a difference. To know if an observed difference is important or meaningful, we need to determine how effective this difference is (Cohen 1988) Cohen suggested a scale to interpret the value of effect size, which is widely used by social scientists based on a general guide developed by Cohen. The scale is shown below.

- $ES < 0.1$  = trivial effect
- $ES 0.1 - 0.3$  = small effect
- $ES 0.3 - 0.5$  = moderate effect
- $ES > 0.5$  = large difference effect



Table 1. Required 21st century skills, descriptive statistics (employers -TVET perceptions)

No.	Skill Description	Employers		TVET		ES (Hedge)
		M	SD	M	SD	
1.	Learning to learn	4.388	0.722	4.286	.957	0.063
2.	Creativity and Innovation	4.380	0.779	4.2000	.677	0.240
3.	Critical Thinking	4.590	.854	4.1429	1.061	0.490
4.	Mathematical Reasoning	3.930	0.943	3.974	.781	0.173
5.	Information literacy	4.310	0.983	4.0857	1.07	0.241
6.	Personal presentation and self-awareness	4.541	0.712	4.0286	.891	0.668
7.	Conscientiousness and perseverance	4.518	0.696	3.9714	.923	0.711
8.	Communication	4.565	0.643	3.9714	.923	0.807
9.	Social Skills: Collaboration	4.812	0.701	3.9714	.954	1.075
10.	Leadership	4.682	0.799	3.9429	1.211	0.789
11.	Technological skills: Digital or IT literacy	4.310	0.736	3.8857	1.022	0.51
12.	Technological: Use of Monitoring equipment	4.110	0.841	3.8857	1.051	0.247
13.	Technological Skills: Interpretation of data	4.42	0.709	3.7714	1.139	0.758
14.	Generic Technological Skills: Adapt to new technologies	4.450	0.711	3.7429	1.146	0.823
15.	Civic Responsibility: Citizenship – local and global	4.33	0.703	3.6857	1.183	0.742
16.	Civic Responsibility: Cultural awareness and sensitivity	4.39	0.630	3.6571	1.083	0.93
17.	Civic Responsibility: Environmental responsibility	4.33	0.663	3.600	.946	0.966

From the above table, it is shown that there is a clear skill gap between the TVET institutions' programs and the requirements of these skills as per employers' perceptions despite the fact that both sectors consider these skills as essential and critical; however, they differ in the degree of importance of these skills to be acquired by their employees. For all these skills employers show higher perception than TVET leaders, in other words, employers require higher level skills than what are provided by TVET institutions. For example, employers consider the degree of personal and social skills: Collaboration (factor 9) as of high importance compared with that required by TVET programs (ES=1.075) despite that the latter also show its significance as shown from the high mean and relatively low standard deviation among respondents. On the other hand, critical thinking skill is perceived as highly important by both sectors but it is much more important for employers than for TVET program developers (ES = 0.49).

In an interview of one employer from an oil company, who ranked critical thinking as one of the top needed skills said "Critical thinking is a highly valuable skill because it is the basis for innovation and problem-solving. When properly developed in students and in the workplace, it can help individuals and teams overcome challenges and meet business goals". Although both employers and TVET leaders consider mathematical reasoning skills (factor 4) as important with little or insignificant difference (ES= 0.173), it is not considered as a high priority. Mathematical reasoning is the only skill that employers perceive as less important than what TVET providers perceive although little difference exists between the two sectors. This is because mathematical skills are considered, by employers, as classroom activities while in the workplace it is considered as one among other tools in achieving a desired outcome (Fitzsimons, 2013). Figure.1 compares the priority ranking of required skills among employers and TVET providers.

As can be seen from the figure, for both sectors, rankings of social and interpersonal skills outperform those of job –relevant skills (technical and discipline related skills). However, there are different perspectives among different sectors of employers. The increasing demand for skilled workers to fill jobs required by the 21st century skills (critical thinking, communication skills and collaboration) is motivating education systems to put more emphasis on increasing graduates who are competent in these required skills such as STEM and other non-cognitive skills which TVET institutions are their major providers of these skills, to further achieve the 2030 sustainable development goals especially SDG4 of quality education (UNDP2015). As can be seen from figure 1, and table-1, the results show that clear gaps exist between the perceptions of employers and TVET providers.

#### Knowledge-Based Economy

Knowledge Economy is an economy in which knowledge is the main instrument of economic growth. It is an economy where knowledge is acquired, created, disseminated and effectively used to enhance economic development (Chen and Dahlman 2006). The survey asked employers and TVET leaders on the impact of shift to knowledge economy on their organizations. TVET leaders consider this shift as highly important (69%

reported as significant and 23% as highly significant) compared with employers of whom 39% reported as fairly significant and 23% as highly significant). Figure-2 compares the mean average perceptions of all sectors with TVET providers.

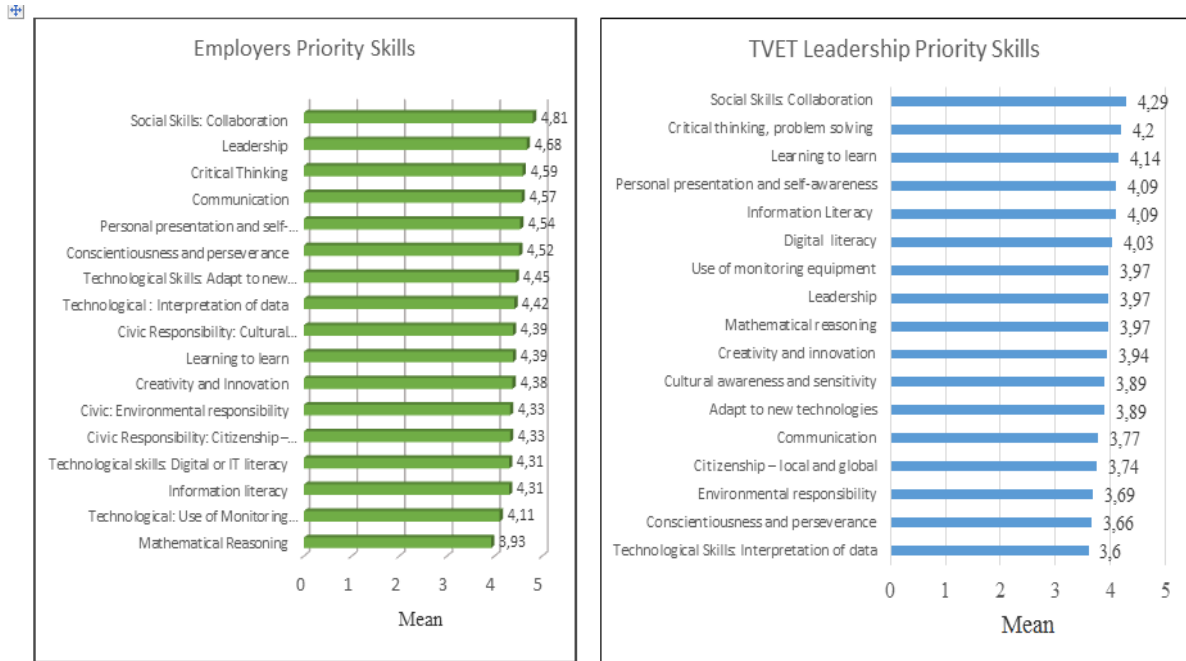


Figure 1. Required skills: Perceived, priority ranking by employers and TVET providers

Among the three sectors, employers of Hydrocarbon & Energy sector consider the impact as highly significant as it is also perceived by TVET providers. The reason for this was indicated by one survey respondent from industry who wrote a comment saying that: ‘Hydrocarbon sector is the main sector that sustains Qatar competitive economy; oil and gas companies support, financially and technically, academic and applied research that help improve their production processes to keep abreast of the latest technological development and also in mitigating the negative environmental impact of their industry. More jobs need applying cutting-edge technologies and demand deeper knowledge of math and science in positions that most people don’t think of as STEM-related, including machinists, electricians, auto techs, , plumbers and pipefitters. Recently digital oil fields become popular in the business. The enrgy business needs more workers skilled in STEM fields, the future of innovation in energy sector and other business depends on STEM-graduates pipeline”.

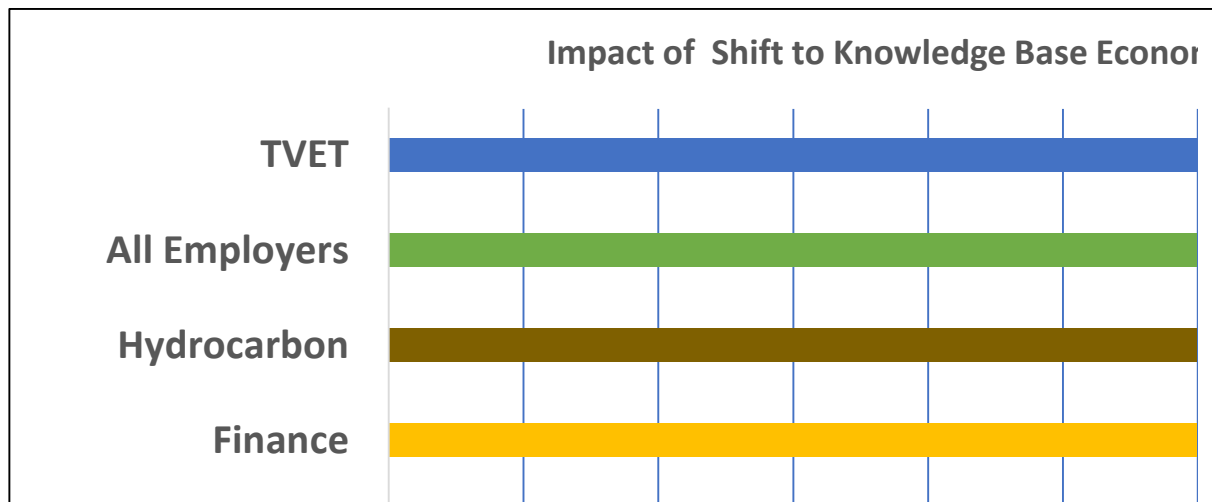


Figure 2. Perceptions of employers and TVET leaders on the impact of knowledge economy

How TVET programs are responding to this need of STEM Careers?

For industries like oil and gas which rely on a sustainable pipeline of STEM talent, finding ways to inspire, attract and retain young people’s interests in these critical subjects is an increasingly important part of their work. Qatar’s ambitious vision rests on four pillars of development: human, social, economic and environmental. Establishing private-public partnerships to develop an effective system for funding scientific research plays an important role in the country’s strategies to support these pillars. The country encourages industry to benefit from the entrepreneurial academic expertise centres to fill the need for applied research.

*Links between employers and TVET*

As part of section -5 of the survey “*Training, Research and the Changing World of Work*” which consists of 24 questions, there were seven questions about the relationships between TVET institutions and industry, and among TVET institutions themselves. These questions are as follows.

- As part of workforce planning do you have any involvement with TVET/Applied Learning institutions and universities?
- Does your business Provide workplace for on-the-job training (industrial placements?)
- Does your business Provide internship opportunities for students?
- Does your business Member or Chair of accreditation panels at TVET/Applied Learning institutions and universities?
- Does your business Engaged in content development of TVET/Applied Learning institutions and universities courses
- Does your business Allow site visits for students as part of their course?
- Does your business Provide TVET/Applied Learning institutions and universities Teachers with industry experience?

The responses are summarized in Figure-3 below.

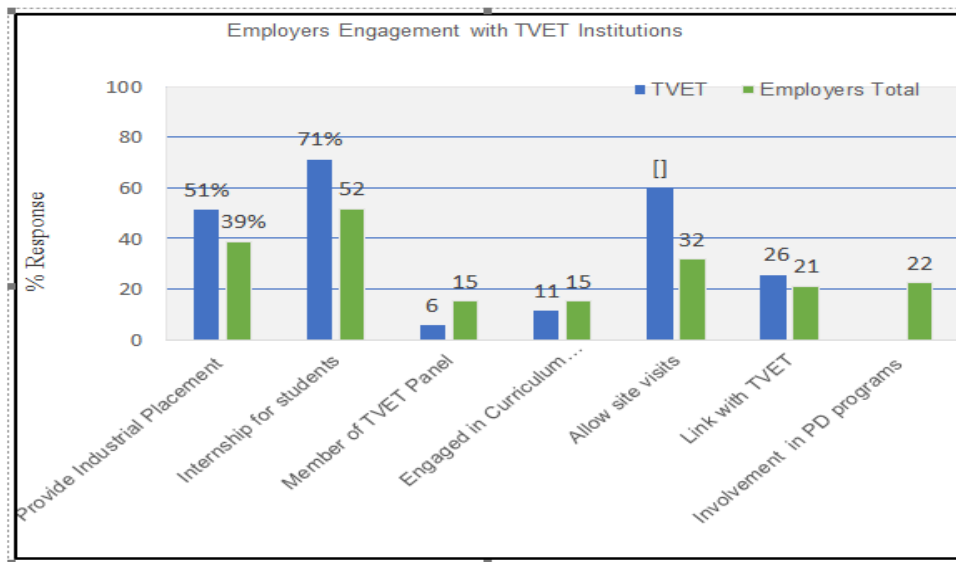


Figure 3. Links between TVET and Industry

TVET respondents also reported a low level of engagement and collaboration between the industry and their institutions as shown in figure-4 below. The below figure reflect the existence of clear weak links between employers and TVET institutions, which lead to a gap between TVET students’ skills provided by education and training systems, and labour market. This means that TVET institutions are not communicating well on the skills’ needs of labour market.

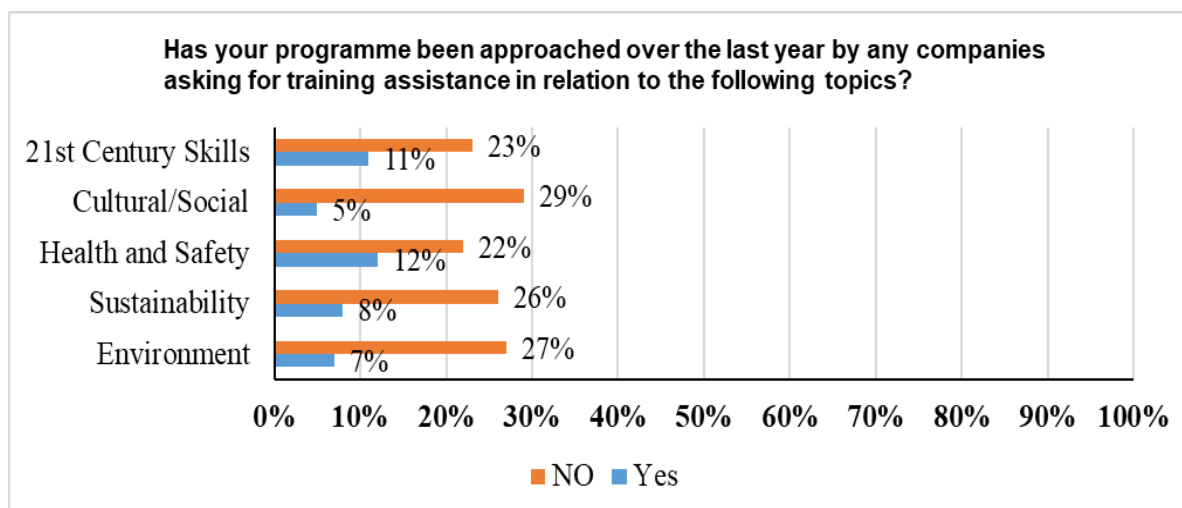


Figure 4. Involvement of employers in professional development programs offered by TVET institutions

Skills gap is defined as insufficient skill levels among employees to meet their job requirement. These gaps have the potential to harm the productivity level of individual organizations by increasing training expenditures and raising the average labour cost (McGuinness & Ortiz, 2016). To bridge this gap TVET institutions have a significant role to play in addressing the skills shortage in the industry. by providing a dynamic TVET curriculum that embraces labor market skills needs which should include skills and knowledge required for competencies such as critical thinking, problem solving, effective communication and collaboration, project-based learning with high technology skills. This can only be achieved by developing effective sustainable partnerships and networks with the industry stakeholders, government departments and policymakers, and with other TVET institutions. Part of this partnership should include participation of employers in TVET planning and processes including curriculum design, training and mentoring. This should allow integrating on-job training and lifelong learning into the TVET curriculum to ensure that graduates are job-ready and adaptable to changing skills requirement. Based on these needs, a robust STEM (Science, Engineering, Mathematics and Technology) curriculum is to be imbedded within TVET programs to prepare students to work and compete in the 21<sup>st</sup> century. TVET programs should develop balanced curricula that embrace both social and soft skills and technical discipline-based skills.

The need for strong link with industry is critical in evaluation and accreditation of TVET programs. An engineering program head wrote: *“We need to involve the industry, if we are talking about the 21st century skills, in my opinion, the accreditation of the programs will be different, because we need to involve industry for evaluating our programs, because we want to develop and, tailor our programs to address these skills, which are needed by industry. We also need for example, to consider placements for faculty members in industry, so they can go to industry, spend a couple of months there as well as for our students. Therefore, the internship components in the program are very important, so we need to give more opportunities to our students and faculty members to spend time with industry sector, this is very, very important”*.

Table-1 and the above figures, indicate that these gaps are reflected from the difference in views on many required skills the TVET students need to acquire. Generally, employers view certain skills as important but they are not properly taught and / or, delivered within TVET curriculum. For example, employers require higher level of interpersonal skills such as self-awareness, perseverance, communication, collaboration and leadership skills, than what TVET providers perceive as important.

In parallel, diverse technologies are also emerging in education, information, nanotechnology, robotics, artificial intelligence. AI and IOT are some of the well-recognized emerging technologies in the world. However, change in education is normally slower than change in the industry sectors, therefore skills’ gaps are mainly a consequence of the rapid advances in technologies; they are faster than education and training systems can respond. TVET program developers tend to plan some sustained programs for few years ahead.

The above table and figures suggest that new TVET curricula should consider integrating these STEM skills. This integration can be accomplished in several ways such as by enriching the curriculum with these skills across different technical and academic courses, and by engaging students in several classes with activities based on STEM knowledge and skills.

## **Conclusions**

TVET is a key ingredient for social and economic development of a nation. In TVET, there are technical and vocational components and of the two, the technical component traditionally is more aligned with math and science. Rapid transformation of the economies in the last two decades through technological innovations, and globalization serve as drivers for tertiary TVET/STEM curriculum. Industry 4.0 professions are quickly emerging; they require technical, science and engineering skills combined with 21<sup>st</sup> century skills such as critical thinking, problem solving, analytical, and communication skills. World is moving from a labour society to an information and knowledge society. 21<sup>st</sup> century industry components include autonomous robots, simulation, system integration, internet of things, cybersecurity, cloud computing, additive manufacturing, big data, etc. Thus aim of project was to strengthen the vocational and technical high schools with STEM training and Industry 4.0 components. STEM education attempts to transform the typical teacher-centered classroom by encouraging a curriculum that is driven by problem-solving, discovery, exploratory learning, and require students to actively engage a situation in order to find its solution. TVET with STEM, results in development of 21-century skills (soft skills) and develop the aptitude and ability to continue learning and pursue lifelong education in a learning society.

## **Recommendations**

There is no one model approach that fits all, because frameworks for the vocationalization of higher education will be different in different countries. However, based on results from this study some relevant practices could be considered a simplified road map towards integration of STEM into TVET.

1. Invest in teacher training and curriculum development
2. Combine academic and technical training to enhance preparation of students for a variety of post-graduation choices,
3. Identify technical high schools and institutions for promoting and giving recognition to TVET and STEM as critical education, and support them with proper regulatory mechanisms, established standards, and a well-developed framework,
4. Look at where there are national demands for TVET with STEM and identify programs accordingly (examples: health care, energy, finance, tourism, built environment, sports facilities development, transportation, IT infrastructure, manufacturing)
5. Caution against segregating and labeling STEM and TVET separately, creating a silo effect. STEM should be considered as a teaching methodology,
6. Establish a strategy to attract youth to STEM and TVET programs with a focus on attracting female students,
7. Using real world problems/issues/challenges as anchors to integrate STEM and other disciplines,
8. Co-developing feasible and flexible learning models/curricula with stakeholders through a systemic and systematic process,
9. Establishing some dual (academic –vocational) tracks schools that emphasize integration of 21st skills needs, into TVET programs where academic and vocational tracks interact and allow students to transfer between them.

## **Acknowledgements or Notes**

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## Scientific Ethics Declaration

The author declares that the scientific ethical and legal responsibility of this article published in EPESS journal belongs to the author.

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### Author Information

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#### Ziad SAID

UNESCO Chair on TVET and Sustainable  
Development & College of the North Atlantic-Qatar  
P.O. Box 24449 – Doha- State of Qatar  
Contact e-mail: [ziad.said@cna-qatar.edu.qa](mailto:ziad.said@cna-qatar.edu.qa)

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## **Evaluation of Students' Views on Problems in the Graduate Education Process**

**Fatma YILDIZ**  
Bilim Middle School

**Fikret ALINCAK**  
Gaziantep University

**Abstract:** Postgraduate education has become important in terms of scientific specialization and competence. Students; After their undergraduate education, they need postgraduate education both in academic life and in terms of developing themselves. In this respect, it is seen that students experience some problems in postgraduate education. This study was carried out in order to evaluate the opinions of the students regarding the problems experienced in the postgraduate education process. Open-ended questions developed by the researcher as a data collection tool were presented to the students. Using the interview method, which is one of the qualitative research methods, the data obtained from 20 students studying in different universities were analyzed with the content analysis method. As a result, the research group stated that they could not improve themselves adequately in the postgraduate education process and that they could not conduct research. In addition, students participating in the study; They stated that they could not communicate enough with the teachers who entered the course and that they had problems because they came from outside the province. In addition, it was concluded that students did not spend enough time on postgraduate education and that they had financial problems.

**Keywords:** Postgraduate education, Problem, Student opinions.

### **Introduction**

Education can be expressed as a dynamic environment that directly affects human life and is also actively affected (Güçlü & Şanal, 2015). The realization of the human and citizen profile envisaged by the countries in their future provisions is possible with the efficient and effective maintenance of the education system. (Yardibi, 2017).

Increasing social and economic needs in the changing world; It requires raising people who can research, question, solve problems, produce information, be creative, benefit from technological tools, express their thoughts easily, make decisions and work as a team (Borich, 2004; Burden & Byrd 1999). The training of qualified manpower with the specified characteristics, a good education system and a good education system are possible with qualified teachers who constantly renew and develop themselves (Baser, Narlı & Günhan, 2003; Fındıkçı, 2001; Kaçan, 2004, Ünal & İter, 2010). Özgüven (1997) describes the qualifications of teachers who train students to meet expectations; being open to innovations, being able to identify problems and suggesting solutions to these problems, being able to think scientifically, and being open to professional development. Teachers want to do postgraduate education in order to have these expected qualifications, to learn new methods and techniques used in learning, and to train highly qualified manpower.

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In the literature, there are many studies emphasizing that postgraduate education is necessary for lifelong training of teachers (Alabaş, Kamer, & Polat, 2012; Bülbül, 2003; Karakütük, 1989; Ünal & İlter, 2010). According to Sayın (2005), postgraduate education is very effective in helping teachers reach the top level in their professional sense. Alabaş, Kamer and Polat (2012) emphasize that postgraduate education is a guide in the professional and personal development processes of teachers and in solving school and classroom problems. This study was carried out to examine students' views on the problems experienced in the graduate education process. For this purpose, answers to the following questions were sought.

1. What are the general thoughts of the students about postgraduate education?
2. What are the students' expectations from graduate education?
3. What are the problems that the students have experienced during the graduate education process?
4. What are the students' suggestions for postgraduate education?

## **Method**

The interview method, which is one of the qualitative research methods, was used in the research. Qualitative research is a method that offers flexible action to the researcher compared to quantitative research, and offers different approaches to data collection method, analysis and research design (Gay, Mills, & Airasian, 2006).

## **Research Group**

The open-ended question form, which was prepared to examine the students' views on the problems experienced in the graduate education process, was applied to the students studying at the University of Gaziantep. The data about the research group are given in Table 1.

Table 1. Personal characteristics of the research group (N = 20)

Variables	Groups	n	%
Gender	Male	13	65
	Woman	7	35

When we look at the gender of the students participating in the research in Table 1, it is seen that 13 (65%) students are male and 7 (35%) students are female.

## **Preparation and Application of the Open-Ended Questionnaire**

In order to create the interview form to be used in the research, first of all, 40 students were asked to write an essay on their views on the problems experienced in the graduate education process. As a result of the information obtained from the collected compositions and the relevant literature, the draft form of the interview form was obtained. One of the logical ways used to test the content validity of the measurement tool prepared for the research is to seek expert opinion (Büyüköztürk, 2006). Necessary adjustments were made in the interview form in line with the opinions taken independently by 3 different experts, and the interview form consisting of 1 question determining personal characteristics and 4 open-ended questions was given its final form. The final version of the prepared interview form was applied to a total of 20 students studying at Gaziantep University, and data were obtained. During the application, the purpose of the research was explained to the participants, and they were informed about the importance of their answers. As a result of the answers given by the participants to the measurement tool, multiple statements were gathered under common themes.

## **Analysis of Data**

The data obtained from the interview form used in the research were analyzed with the content analysis method used in qualitative research. In qualitative research, content analysis is used to create and analyze theoretically unclear themes and, if any, sub-themes (Yıldırım & Şimşek, 2006. P: 14). The obtained data were recorded separately, grouped and coded. These groupings and codings were presented to the experts in the field, and their final forms were prepared for analysis by 3 different experts independently of each other, according to the evaluations of the experts. With the content analysis, themes were determined for each question and the



frequencies and percentages of the given themes were calculated and tables were created. Descriptive analysis was used to evaluate the data. Finally, a report was made and the findings were presented.

### **Findings and Interpretation**

In this section, the findings obtained as a result of the interviews with the aim of examining the problems experienced by the postgraduate students at Gaziantep University are included.

Table 2. Distribution of the opinions of the research group regarding their general thoughts about postgraduate education.

Themes	n	%
Beginning of academic career	15	37.5
We got new information	14	35
Every undergraduate graduate should receive postgraduate education	11	27.5
Total	40	100

Table 2 gives the distribution of the opinions of the research group about their thoughts on postgraduate education. When the opinions of the participants about postgraduate education were examined, 3 themes emerged. It was observed that the participants expressed more than one theme. Among these themes, according to the order of percentage, the themes of the beginning of an academic career (37.5%), We obtained new information (35%), every undergraduate graduate should receive postgraduate education (27.5%) came to the fore.

Table 3. Distribution of the research group's views on their expectations from postgraduate education.

Themes	n	%
Developing scientifically	18	39.2
To be an academic	14	30.4
Benefiting from the experience of our teachers	14	30.4
Total	46	100

Table 3 gives the distribution of the opinions of the research group regarding their expectations from postgraduate education. Three themes emerged in the distribution of the participants' views on their expectations from graduate education. According to this; 18 students (39.2%), almost all of the research group, expressed their opinion in the direction of scientific development. In addition, 14 students (30.4%) expressed their views to become academicians, and 14 students (30.4%) expressed their views as benefiting from the experiences of our teachers.

Table 4. Distribution of the research group's views on the problems they experienced during the postgraduate education process.

Themes	N	%
Transportation and material	17	34
Time crunch	15	30
On scientific research	15	30
I have no problem	3	6
Total	50	100

Table 4 gives the distribution of the opinions of the research group regarding the problems they encountered in postgraduate education. Four themes emerged from the opinions of the participants about the problems they encountered in postgraduate education. Among these themes, according to the order of percentage, it was seen that the themes of transportation and material (34%), lack of time (30%), doing scientific research (30%), I have no problems (6%), came to the fore.

Table 5, gives the distribution of the opinions of the research group regarding the problems they encountered in postgraduate education is given. Four themes emerged from the opinions of the participants about their suggestions for postgraduate education. Among these themes, according to the order of percentage, it was seen that the lessons should be more active (37.5%), support should be given for abroad education (31.3%), be objective (25%), and I have no suggestions (6.2%).

Table 5. Distribution of the research group's recommendations regarding postgraduate education

Themes	N	%
Lessons should be more active	12	37.5
Support for overseas education	10	31.3
Be objective	8	25
I have no suggestions	2	6.2
Total	32	100

## **Results and Discussion**

In this part of the research, the results obtained as a result of the interviews made with the aim of examining the students' views on the problems experienced in the graduate education process are included. When the thoughts of the research group about graduate education were examined, 3 themes emerged. Accordingly, graduate students; stated that they see master's degree as the beginning of an academic career. In addition, they stated that they obtained new information and that every undergraduate graduate should receive postgraduate education. Baser et al. (2005) concluded in their research that 16.7% of the teachers who received postgraduate education received postgraduate education for an academic career, while Oluk and Çolak (2005) concluded that all the teachers who took postgraduate education, who participated in their research, are the reason for starting postgraduate education to take charge in academic career and universities. reached their stated conclusion.

When we look at the expectations of the research group from postgraduate education, almost all of them stated that they want to develop scientifically. In addition, the research group; They expressed their opinion that they wanted to become academicians and to benefit from the experiences of their teachers. When we look at the problems encountered by the research group in postgraduate education, most of them; They stated that they had problems with transportation and material resources, time constraints, and scientific research. 3 students stated that they did not have any problems. In the studies conducted by Karakütük (2000), Oluk and Çolak (2005), it was stated that students who continue their graduate education have problems with permission. Aslan (2013), on the other hand, emphasized in his research that legal measures should be provided to students working in public institutions, especially in public institutions, regarding the permission required for their graduate education. In the studies of Alabaş, Kamer and Polat (2012) and Özmenteş and Özmenteş (2010), students stated that they had problems with transportation.

When we look at the opinions of the research group regarding the postgraduate education suggestions, the participants; They made suggestions that the courses should be more active, support for overseas education should be provided, and that it should be objective. In addition, 3 students who participated in the study stated that they did not have any suggestions.

## **Conclusion**

As a result, the research group stated that they could not improve themselves adequately in the postgraduate education process and that they could not conduct research. In addition, students participating in the study; They stated that they could not communicate enough with the teachers who entered the course and that they had problems because they came from outside the province. In addition, it was concluded that students did not spend enough time on postgraduate education and that they had financial problems.

## **Recommendations**

Whether the subject and question distribution of the physical education teacher field exam are adequately met within the framework of teaching profession knowledge on the basis of field should be reviewed should be passed.

## **Scientific Ethics Declaration**

The authors declare that the scientific ethical and legal responsibility of this article published in EPESS journal belongs to the authors.

## Acknowledgements or Notes

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### Author Information

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**Fatma YILDIZ**

Bilim Middle School, Gaziantep, Turkey  
Contact e-mail: [ffatmayldzzzz@gmail.com](mailto:ffatmayldzzzz@gmail.com)

**Fikret ALINCAK**

Gaziantep University Faculty of Sports Sciences,  
Gaziantep, Turkey.

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## **Opinions of Classroom Teachers on In-service Training**

**Bedriye ACIKGOZ**  
Ministry of Education

**Ozkan AKMAN**  
Suleyman Demirel University

**Abstract:** Continuous developments and changes have demonstrated the need for us to develop in every sense. In this respect, it is through in-service training that teachers adapt to this change and improve themselves in many ways. This research aims to determine the opinions of classroom teachers about in-service education. The research was conducted in the spring semester of 2020-2021. The research is qualitative and designed with a case study. Easy-to-access case sampling was used under pure sampling methods when selecting a study group. The interview technique was used as a data collection method. For this purpose, semi-structured interviews were conducted with classroom teachers (1 male, 4 female) working in various provinces and districts of Turkey. Interview questions were asked as five open-ended questions and five sub-questions. Due to the Covid-19 pandemic, the interviews were made by phone, and audio recordings were obtained with permission. Content and descriptive analyses were performed on the data obtained during the interview. According to the data obtained from the interviews, themes were created, themes were strategized and the opinions of the teachers were explained by quoting directly. Interviews were supported by photos. In the light of the findings of this study, it was concluded that in-service training should be based on practice, that the practitioner should be equipped, that there should be different types of training, and that there should be in-service training not only professionally, but also to improve communication. According to the results obtained, separate training should be given for the instructors to be better equipped, application-based training should be increased, and the subjects of the training should be diversified.

**Keywords:** In-Service Training, In-Service Training Approaches, Professional Development.

### **Introduction**

The rapid development in science and technology has revealed many important events in the society and this has made it necessary for teachers to train themselves by making it necessary to develop in every field (Günbayı & Taşdoğan, 2021). These developments and changes have made it necessary for people to gain new skills. Teachers need to adapt to these developments in order to improve themselves. A teacher who does not improve herself will not be enough to realize the goals of the education system (Aydın, 2021). It should be equipped in accordance with the requirements of the age, not only in the education system, but also in all institutions (Ertürkmen, et al., 2012). According to Karakelle (2005), an effective education will take place with teachers who can keep up with the requirements of the age and can use technology.

In-service training is a training given to the employee to do his/her job properly, to contribute to professional development, and to perform his/her profession better (Demir & Demir, 2021). In-service training includes various purposes. These purposes are; informing teachers about innovations and developments, increasing knowledge and skills, meeting educational needs, adapting, renewing the profession, ensuring unity and solidarity among teachers (Baskan, 2001; Şahin & Türkoğlu, 2017). Persons who participate in in-service

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training have the opportunity to keep up with professional development, to perform their duties more effectively and efficiently, to gain new knowledge and skills related to their job, to provide personal development, to develop professional satisfaction and positive attitudes towards the work they do (Aydın, 2021; Başkan, 2001; Kayabaş, 2008). According to Gültekin and Çubukçu (2008), while in-service training aims to develop teachers in all areas, continuous training should be provided through in-service training as well as pre-service training. Because, pre-service training may be insufficient in this regard due to the continuous developments. The success of the changes made in the education system is possible with teachers who can carry out effective and beneficial activities. In order for teachers to achieve this goal, they need to renew themselves with new knowledge and skills (Akbaş & Uzunöz, 2012).

In-service trainings in the Ministry of National Education are planned according to the in-service training regulations. The in-service trainings that teachers receive are planned as central trainings that all teachers in Turkey can apply to, and local events that teachers can apply and participate in in the provinces where they work (Kahraman, 2018). Teachers' in-service training approaches vary. Saban (2000) explains them as follows;

- Professional teacher approach: It is an approach that aims to raise new generations who are conscious, creative, who undertake the task of raising individuals who will shape the society, and who are creative and balanced in terms of body, mind, morals and emotions.
- Changeover approach: Changes and developments in various fields necessitated change. Therefore, the deficiencies occurring before the service should be met with in-service training later.
- Developmental approach: Teachers have various needs and different interests at each stage of their professional life. These developments make it necessary to apply in-service training models.

Aytaç (2000) states that as in-service problems, there are organizational problems, personnel rights problems, quantity and quality problems of personnel and coordination problems in in-service training. Accordingly, the teacher should be a person who constantly renews and develops himself and should meet this with in-service training (Ergin et al., 2012; Garuba, 2014). The environment, methods and techniques, training tools, equipment of the trainer, seating arrangement are important variables for in-service training practice (Buckley & Caple, 2007 cited in Ceylan & Gündoğdu, 2017).

When the literature is examined, the studies on in-service training between the years 2010-2021; (Yılmaz & Dügenci, 2010; Çepni & Çoruhlu, 2010; Gurcan et al., 2010; Özdemir, 2010; Özcan & Bakioglu, 2010; Metin & Özmen, 2010; Doğan et al., 2011; Uzunöz et al., 2011; Baştürk, 2012 ; Arslan & Şahin, 2013; Önen et al., 2013; Arslan, 2013; Erdem & Şimşek, 2013; Karasu et al., 2014; Serin & Korkmaz, 2014; Şahin & Güçlü, 2010; Şen et al., 2013; Taşlibeyaz et al. , 2014; Görmüş & Kahya, 2014; Sarıtepeci et al., 2016; Karadağ, 2016; Kayıkçı & Turan, 2017; Bağ & Çeviker Ay, 2017; Şahin & Türkoğlu, 2017; Gümüş, 2018; Mahmutoğullari & Perçin, 2019; Taymaz, 2019; Küçükahmet, 2019; Yalnız et al., 2020; Yıldırım & Ayık, 2020; Albez et al., 2020; Sarısoy & Alcı, 2021).

The study is important to reveal the opinions of classroom teachers about in-service training. In the light of the above literature, the aim of this study is; to determine the opinions of classroom teachers about in-service training. For this purpose, the answer to the following question was sought:

1. How do you choose the in-service trainings you attend?
2. Do you find the activities carried out in in-service trainings sufficient? Can you explain?
3. Do you think that in-service training contributes to professional development? Can you explain?
4. As primary school teachers, is there any training that you think all class teachers should attend? Which are these?
5. Could you give information about the positive and negative aspects of the in-service trainings you attended?

## **Method**

### **Model of the Research**

The research conducted to determine the opinions of classroom teachers about in-service training is a qualitative research and was conducted with a case study as a design. A case study is an approach in which themes are

defined by comprehensively describing a single entity, phenomenon and examining a current event in depth with data collection tools such as observation, interview, and documents (Creswell, 2007; Meriam, 2015).

### **Working group**

This research was applied to 4 classroom teachers who received in-service training working in various provinces and districts of Turkey in the spring term of 2020-2021. Demographic information of classroom teachers is given in the table below.

Table 1. Demographic information of classroom teachers

	Demographic Information	N
Gender	Male	1
	Female	4
Age	30	1
	31	2
	32	1
	50	1
Seniority	6-10 years	4
	21 years and above	1

### **Data Collection**

Interview technique, one of the qualitative data collection methods, was used in the research. In order to get the opinions of the classroom teachers about the in-service training, questions about personal information were asked first, and then semi-structured interview questions were asked. Interview questions were prepared after a literature review. In this study, expert opinion was obtained from a lecturer and a classroom teacher on the reliability and validity of the questions, the questions were corrected, and then the pilot application was made to take its final form. The interviews were made with the classroom teachers working in various provinces and districts of Turkey on a voluntary basis. While determining the Working Group, easily accessible case sampling was used under purposive sampling methods, one of the qualitative research methods. Easily accessible case sampling is a case sampling that provides speed and practicality, is less costly, and saves time (Yıldırım & Şimşek, 2018). Due to the Covid-19 epidemic, interviews were made over the phone and audio recordings were allowed, and they were held for an hour they deemed appropriate. Interview questions were asked as five open-ended questions and five sub-questions. Apart from this, additional and probing questions were asked to the participants during the interview in order to make the interviews more detailed. For the elaboration of the research, photographs taken at the time of the teachers' in-service training were requested and shared in the aforementioned themes.

Before the interview started, they were informed about the in-service and they were informed that the interview would not be used for other purposes and that their names would be kept confidential, so that they could express themselves more easily. Reporting the collected data in detail and explaining how the researcher reached the results are important criteria of validity in the research. Validity is an important criterion of reliability, and the importance given to validity is also aimed at ensuring reliability (Yıldırım & Şimşek, 2018).

### **Analysis of Data**

Content analysis and descriptive analysis were performed on the data obtained from the interview. These data were then divided into four themes according to the answers given by the teachers and these themes were divided into subcategories. The interview data were taken in their original form and quoted directly without adding any comments. Interviews were supported by photographs. Classroom teachers were coded as "SÖ", their genders as "K and E", and symbols as "KSÖ1, KSÖ2, KSÖ3, KSÖ4, ESÖ".

### **Results and Discussion**

According to the findings obtained from the semi-structured interviews with five teachers in this section, "What are the opinions of the classroom teachers about in-service training?" The answer to the question has been

sought. Accordingly, the findings were analyzed under four themes according to the answers given. The titles of the themes are as follows; (1) the training that classroom teachers should receive, (2) the effect of in-service training, (3) the positive aspects of in-service training, (4) the negative aspects of in-service training.

### **1. The training that primary school teachers must receive**

In this theme, in-service training opinions, which the teachers say they should take, are discussed in two sub-categories. Below are the findings that include teachers' views on communication skills and according to the constructivist theory.

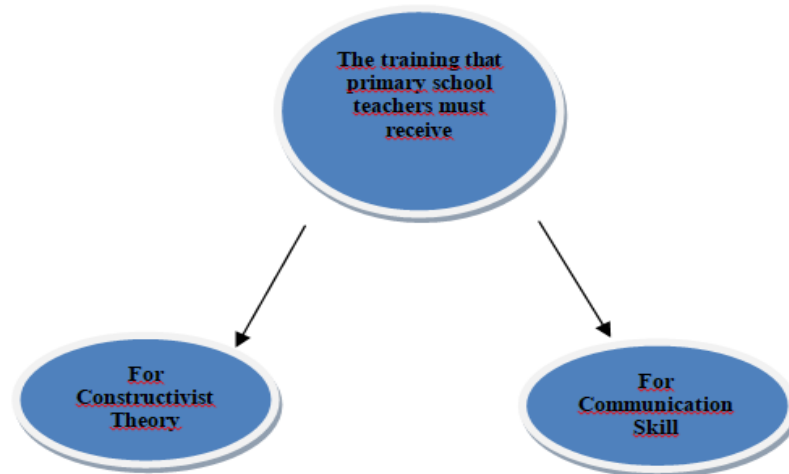


Figure 1: Educational opinions that primary school teachers must take

#### *1.1. In-service training for constructivist theory*

The teachers participating in the research advocated student-centered education, which includes more active teaching methods and techniques than the constructivist theory, and defended learning by doing, where information is not given directly, and these views are discussed in this category. According to these views, teachers expressed their opinion that there should be more memorable and useful seminars.



Photograph 1: In-service training where KSÖ4 shared her views

*ESÖ: "I think the creative drama method will be beneficial when considering the effect of student-centered coursework on success. This needs to be taught to teachers, even at a basic level".*

*KSÖ1: "I think all classroom teachers should receive customary education. .... Brain teasers, web2 tools, coding"*

*KSÖ2: "They need to attend in-service training for special education children. It's about children's games... in the primary school part, because most of our lessons are based on games, this part is a bit lacking because the teachers don't know what games to play with the new generation children".*

*KSÖ3: "... mind games, classroom management, game techniques, different approaches in teaching".*

*KSÖ4: "I definitely see the customary education as it should be, the education that they will usually get involved in with games is very important, especially drama. If there are activities that will be embodied in the mind of the child more than the*

*knowledge and theory part, they can participate if there are trainings that deal with this”.*

He/she prefers that this method should be used because the in-service training KSÖ4 received is an education in which all teachers are active except for classical lecture methods. “Photo 1” of the teacher, which reflects the teacher's opinion, supports this view.

### *1.2. In-service training for communication skills*

Teachers need in-service communication based on communication in this direction in order to further improve their communication skills with parents, students and schools that they need regarding in-service training. Teachers' views on this area were gathered under this category. Some of the teachers who expressed their opinions below also stated that in-service training should be given in the direction of communication and that there is a lack of teachers in communication.

*KSÖ3: “1. I would like to tell you how to approach a child who starts the classroom, how to get into the classroom, how to communicate, what to pay attention to during a year in literacy. Because I see the biggest deficiency here”.*

*ESÖ: “Apart from this, training on student and parent communication is required. Let me give an example, I came across a speech by a teacher's parent in our school. Although it was the first week of school and the letters had not even started, the teacher asked the parents to send the child to the kindergarten. Velide said he didn't want to send it. The teacher said okay, but don't expect too much. This made me think that a teacher should receive training on this subject”.*

## **2. The Effect of In-Service Training**

In this theme, the effects of teachers' participation in in-service training were discussed in two sub-categories and teachers' opinions were explained by quoting directly.

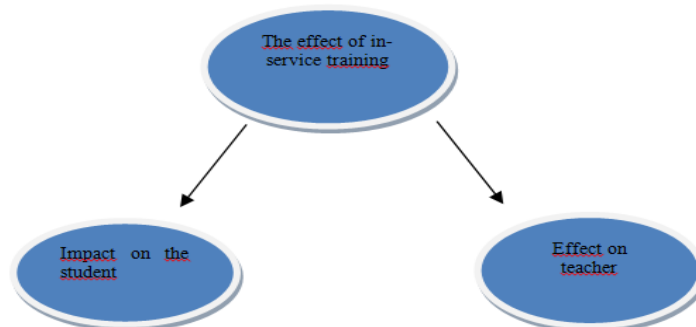


Figure 2. The effect of in-service training received by classroom teachers

### *2.1. The effect of in-service training on students*

It is a fact that receiving in-service training is not only a professional development for the teacher, but also an education that reflects on the student. When evaluated in this respect, the opinions of teachers about their effects on students are discussed in this category. Classroom teachers think that when they do classroom practices with in-service training, it is beneficial for students and contributes to students' learning.

*KSÖ4: A teacher gives  $2+2=4$  in every way. But if he teaches this in a more permanent way, it will be very practical to teach in the mind of the child, and the students will learn”.*

*KSÖ1: “For example, I had traditional training in the past years and had a lot of fun. Although it was a practical education, it was enough for us. We never had a day free. We had full training every day. I think this is a very useful education for children as well”.*



## 2.2. The effect of in-service training on the teacher

The effects of teachers participating in in-service training on themselves were included in this category. Below are the teachers' views on this. Classroom teachers participating in the study improve their social relations by receiving in-service training and use what they have learned in their lessons.



Photograph 2. In-service training where KSÖ3 shared her views

*KSÖ3: "We didn't want to leave when we left, we added each other on whatsapp. They also improve social interaction and commitment among teachers."*

*KSÖ1: "...I participated and found it very successful. It was the training we did by using the things we use every day more consciously. I use it in my lessons in education. This has been very beneficial for me".*

*ESÖ: "It is absolutely beneficial during and after the in-service trainings that are planned with good activities ... in the classroom practices".*

KSÖ3 stated that teachers' interactions with each other in in-service training showed that they developed socially. Photograph 2 supports the teacher's view.

## 3.3. Positive sides of in-service training

In this theme, teachers' views on the positive aspects of in-service training were divided into two sub-categories and their views were explained by quoting directly.

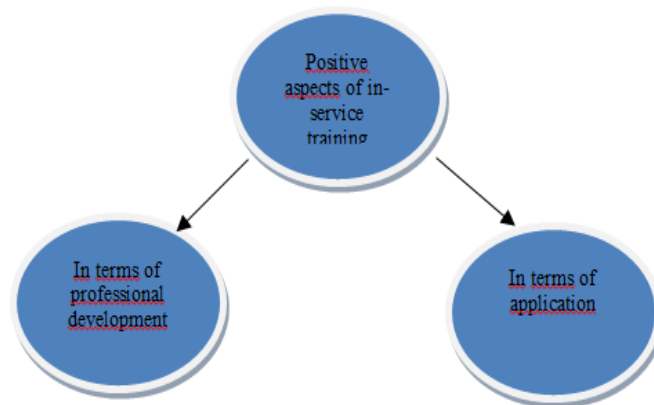


Figure 3. Positive aspects of in-service training

### 3.1. In terms of professional development

Considering the positive aspects of in-service training, the benefits it provides to teachers are discussed in this sub-category according to teacher opinions. Below are the opinions of teachers in this sub-category. Teachers find it positive that in-service trainings are carried out to renew themselves and to make up for their deficiencies.



Photograph 3. In-service training in which ESÖ shared her views

*KSÖ2: “We are constantly updating ourselves on the positive side. It enables us to keep up with innovations. It allows us to see and make up for our shortcomings”.*

*KSÖ1: “As a positive teacher, the education we received at the university is not enough for us. In-service training keeps us alive. Although we have acquired some techniques at university, some techniques may be lacking because they are newly developed”.*

*ESÖ: “Some of its positive aspects have positive aspects such as contributing to professional development and enabling us to perform a different activity outside of our daily activities, albeit for a short time”.*

ESÖ stated that teachers' performing different activities and contributing to professional development in in-service training. Photograph 3 supports the views of ESÖ.

### *3.2. In terms of application*

The classroom teachers who participated in the study also mentioned the teaching methods and techniques applied while expressing their opinions on the positive aspects of in-service training. The opinions of the teachers on this subject are given below. Classroom teachers find it more effective to carry out activities during the implementation of in-service training. Being more active in education also makes learning positive.



Photograph 4. In-service training in which KSO shared her views

*KSÖ4: “...I went to a related training. We got involved there. We learned by doing. Because it was taught through games. They showed a lot of game techniques to improve our empathy skills. This was a very positive aspect. If we get involved in the process, it will be productive”.*

*KSÖ3: “If there is an event, a person experiences his student life again, refreshes his blood, feels like he has been reborn”.*

Photograph 4 supports the views expressed by KSÖ4 through in-service training, which provides learning by worshipping and teaching through games.

## **4. Negative sides of in-service training**

In this theme, the opinions of the classroom teachers about the negative aspects of in-service training were divided into five sub-categories and explained by taking the opinions of the teachers directly.

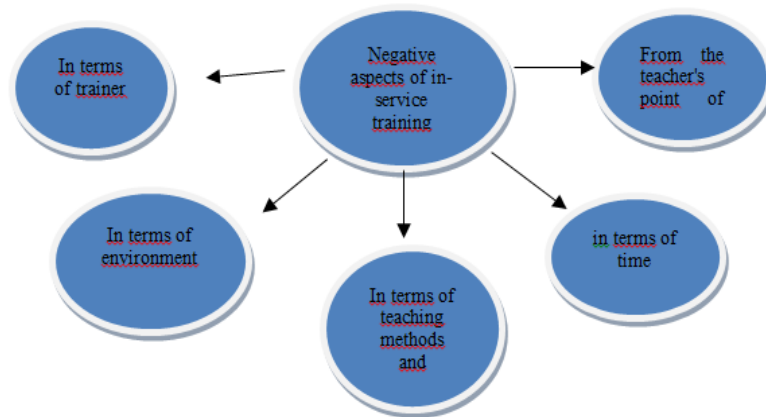


Figure 4. Negative aspects of in-service training

#### 4.1. In terms of trainer

Classroom teachers who participated in the study also stated that there are negative aspects of in-service training in terms of trainers. Below are the opinions of teachers that they see as negative in terms of educators. According to the teachers, as the negative features of in-service training for the trainer; not to have them practice, to find it insufficient in explaining, to do it with the thought of fulfilling the task.

*ESÖ: "...Some of them have good events. In some, there are activities that are done to be done outside the subject. If I give an example, in order to use the drama method in all the activities I attend, everyone is a part of a machine, some make a sound, some make a move, but it has nothing to do with the subject and we do it for the sake of doing it. Because the person doing it does not know the purpose of doing that activity. Insufficient knowledge on this subject. He acts with the aim of implementing and finishing the program given to him. Of course, we cannot say that for all of them."*

*KSÖ1: "I sometimes find some of them inadequate. While some of them are sufficient for us due to their trainers, in some trainings that should be applied theoretically, the application part may be insufficient".*

*KSÖ2: "I think it was done with the logic of "Let it be done and finished". I think that the people who did it did it just because it was their duty. Our participation is less. The content of the trainings seems to be full, but since they cannot convey it to the other party, the content does not matter much."*

*KSÖ3: "The downside is that the training of teachers who only call unwilling people there or do it for money, or teachers who have no talent, and whom the principals choose so that one of us can go, is terrible".*

#### 4.2. In terms of environment

The classroom teachers who participated in the study also stated that there are negativities in terms of the environment related to in-service training. Below are the opinions of teachers that they see as negative in terms of the environment in which in-service training is given. Teachers stated that there was a negative experience of having crowded classrooms and preferring environments where practice could not be done.

*ESÖ: "There are also negative aspects regarding the educational environment. Due to the space, there is not enough activity in the trainings held in a classroom environment".*

*KSÖ3: "We don't expect a 5-star place while studying, but there may be environments that make you feel better and more valuable".*

*KSÖ4: "If it is done in a place without infrastructure, even the person at the back cannot hear the person speaking".*

#### *4.3. In terms of teaching methods and techniques*

Classroom teachers who participated in the study also stated that there are negative aspects in terms of teaching methods and techniques related to in-service training. Below are the opinions of teachers that they consider negative in terms of teaching methods and techniques of in-service training. In terms of teaching method and technique, the use of plain teaching method and not having activities were found to be negative for teachers.

*KSÖ2: "Although the negative aspects seem to be full of content, there are superficial expressions and progress based on one-sided narration. I think it would be more beneficial if in-service training was provided for them in a more interactive or activity-based way".*

*KSÖ3: "They give the training to certain people, they also open the blackboard, reflect it like an old-style classical lecture, and read the slide to us. They read it like that without doing anything without any activity. They get really boring. It doesn't add much."*

*KSÖ4: "When it is explained as theoretical knowledge, it does not reach its purpose when it is passed with slides, it is done for doing".*

#### *4.4. In terms of time*

In terms of time, if in-service trainings are given as compulsory, in-service training at an hour that is not suitable for teachers is evaluated negatively. Below is the teacher's view of in-service training, which is seen as negative in terms of time.

*ESÖ: "... obligatory in-service trainings being held after classes or in the evening may also hinder the benefits of training".*

#### *4.5. From the teacher's point of view*

In terms of time, when in-service trainings are given as compulsory, the hours that are not suitable for teachers are evaluated negatively. Below is the teacher's view of in-service training, which is seen as negative in terms of time.

*KSÖ4: "Teachers come there if it is necessary, as if to say why are you telling this, or saying it's late, it breaks the motivation of other teachers, it also breaks the pleasure of learning there".*

*ESÖ: "...some of the attendees are in a hurry to finish and leave as soon as possible because they think we should go home even if the time runs out. As such, it is of no use."*

## **Conclusion**

In this study, findings regarding the opinions of classroom teachers on in-service training were obtained and discussion, results and suggestions were included according to the findings obtained. According to the results obtained from the research, teachers defend the view that lessons should be taught according to the constructivist theory. Önen et al. (2009) conducted a single group experimental study before and after in-service training, and it was determined that in-service training increased knowledge on teachers compared to the constructivist approach. When we compare it with our study, we can think that this way of teaching achieves similar results in terms of providing a better learning for them. Gültekin and Çubukçu (2008) conducted a study to determine primary school teachers' views on in-service training, and similar results are seen in this study, with the conclusion that teachers have a positive attitude towards in-service training and that in-service training is necessary. Hamdan (2003) primary school teachers' views on in-service training given by the Ministry of National Education to improve themselves, the views of physics teachers about in-service training in the study conducted by Gönen and Kocakaya (2006), Durmuş (2003), Kanlı and Yağbasan (2002). In the studies, the opinions of the teachers in our research that they make positive contributions to the profession support each other. Sarıgöz (2011), Çepni et al. (2005) and Küçüktepe (2013) findings that in-service training should be given

in practice are similar to the opinions of teachers in our research that there should be applied in-service training. Gül and Aslan's (2009) study supports the finding obtained in our research with the view that the trainer providing in-service training should be an expert. Karasolak et al. (2013) found that teachers had a negative attitude towards in-service training activities, and Uçar and İpek (2006) found that there were no adequate practices in the study of primary school teachers, which aimed to determine their views on in-service training practices. Ergin et al. (2012), Günbay and Taşdoğan (2012) and Karadağ (2015) according to the findings obtained in our research with the positive attitude of teachers towards in-service training, being open to newcomers, the trainers explaining with slides and not being an expert on the subject, and the fact that there are problems about the place where in-service training is given. Obtaining similar results also support each other.

The results obtained in the light of the findings obtained from this study are as follows: Teachers want to receive education with active teaching methods based on constructivist theory as a must-have education and education should be based on practice. These; orff, mind games, creative drama, game techniques. As for communication skills, training should be taken to improve communication with parents and students. In-service training is also seen as a tool that enables teachers to socialize. In-service training should always be done. Apart from teachers, this is also necessary for students to whom information is transferred. Teachers can be aware of innovations, learn different techniques, and make up for their shortcomings. A more effective education occurs when they are involved in the process. Regarding the negative aspects of in-service training, the trainer, environment, teaching methods and techniques vary in terms of time and teacher. It has been concluded that the environment where the teachers are given in-service training should not be crowded, there should be a place where practice can be made, the activities will be organized with the active participation of everyone, and the trainer should be well-equipped in this regard.

## **Scientific Ethics Declaration**

The authors declare that the scientific ethical and legal responsibility of this article published in EPESS journal belongs to the authors.

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### Author Information

**Bedriye ACIKGOZ**

Ministry of Education, Turkey

Contact e-mail: [bediss\\_61@hotmail.com](mailto:bediss_61@hotmail.com)

**Ozkan AKMAN**

Süleyman Demirel University, Faculty of Education,

Isparta, Turkey

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## **Evaluation of Teachers' Attitudes Regarding Unwanted Student Behaviors**

**Huseyin UZUM**

Orhan Sevinç Vocational and Technical Anatolian High School

**Fikret ALINCAK**

Gaziantep University

**Abstract:** The aim of this study is to reveal teachers' attitudes towards undesirable student behaviors. Open-ended questions developed by the researcher as a data collection tool in the study were presented to physical education teachers. Using the interview method, which is one of the qualitative research methods, in the research, the data obtained from 20 teachers working in schools affiliated to Gaziantep Provincial Directorate of National Education in the 2017-2018 academic year were analyzed by content analysis method. As a result, the teachers stated that when there was a problem among the students, they solved it among themselves and verbally warned the students who were trying to disrupt the classroom order. In addition, they stated that they had different activities for students who were not interested in the lesson. In addition, it was concluded that the research group carried out activities in that direction by considering the individual differences of all students in terms of ensuring the unity of the class.

**Keywords:** Postgraduate education, Problem, Student opinions.

### **Introduction**

In almost every educational environment, many undesirable student behaviors are encountered that cause problems in varying degrees of importance. However, the importance and form of these behaviors differ according to the variables affecting the education. Because the way a behavior is perceived positively or negatively can change according to the characteristics of the classroom environment at that moment (Öztürk, 2003).

Undesirable student behaviors can occur in any classroom environment (Arwood, Marrow, Lane, & Joliette, 2005). However, each classroom environment has different characteristics in terms of the frequency and level of undesirable behavior. The main factor that creates this difference is the level of the teacher's classroom management knowledge and skills. For this reason, the ability to cope with undesirable student behaviors that are constantly seen in classroom environments constitute an important dimension of classroom management (Curwin & Mendler, 1998). Teachers allocate time to manage undesirable behaviors rather than academic activities in classroom management processes (Rosen, Taylor, O'Leary, & Sonderson, 1990). This study was prepared to determine teachers' attitudes towards undesirable student behaviors. For this purpose, answers to the following questions were sought.

1. What do teachers do when there is a fight or argument among students?
2. What are the behaviors of teachers towards students who are not interested in the lesson?
3. What are the attitudes of teachers towards students who do not attend the lesson?

### **Method**

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The case study design, which is one of the qualitative research methods, was used in the research. Qualitative research is a method that offers flexible action to the researcher compared to quantitative research, and offers different approaches to data collection method, analysis and research design (Gay, Mills, & Airasian, 2006). A case study is a research design that examines the researched phenomenon within its own framework of life, and is used when the boundaries between the phenomenon and its environment are not clearly defined, and where there is more than one evidence or data source (Yıldırım & Şimşek, 2016).

## **Research Group**

The open-ended question form, which was prepared to evaluate the attitudes of teachers towards undesirable student behaviors, was applied to 20 teachers working in schools affiliated to Gaziantep Provincial Directorate of National Education. The data about the research group are given in Table 1.

Table 1. Personal characteristics of the research group (N = 20)

Variables	Groups	n	%
Branch	Class Teacher	4	20
	Turkish teacher	4	20
	Social Studies Teacher	4	20
	Math teacher	4	20
	Physical Education and Sports Teacher	4	20
Gender	Male	12	60
	Woman	8	40

In Table 1, some personal characteristics of the research group are given. When we look at the branches of the teachers participating in the research, 4 people (20%) Classroom teachers, 4 people (20%) Turkish teachers, 4 people (20%) Social studies teachers, 4 people (20%) Mathematics teachers, 4 people (20%) Physical Education. It is seen that he worked as an education and sports teacher. In terms of gender, 12 (60%) of the participating group were male and 8 (40%) were female.

## **Preparation and Application of the Open-Ended Questionnaire**

In order to create the interview form to be used in the research, first of all, 50 teachers were asked to write an essay about their views on their attitudes towards undesirable student behaviors. As a result of the information obtained from the collected compositions and the relevant literature, the draft form of the interview form was obtained. One of the logical ways used to test the content validity of the measurement tool prepared for the research is to seek expert opinion (Büyüköztürk, 2006). The interview form was presented to the opinions of the field experts and necessary arrangements were made in line with the opinions received, and the interview form, consisting of 2 questions determining personal characteristics and 3 open-ended questions, was finalized. The questions prepared are:

1. What do teachers do when there is a fight or argument among students?
2. What are the behaviors of teachers towards students who are not interested in the lesson?
3. What are the attitudes of teachers towards students who do not attend the lesson?

During the application, the purpose of the research was explained to the participants, and they were informed about the importance of their answers. Data were obtained by applying the final version of the prepared interview form to the group participating in our study on a voluntary basis. As a result of the answers given by the participants to the measurement tool, multiple statements were gathered under common themes.

## **Analysis of Data**

The data obtained from the interview form used in the research were analyzed with the content analysis method used in qualitative research. In qualitative research, content analysis is used to analyze theoretically unclear themes and, if any, sub-themes (Yıldırım & Şimşek, 2016). The data obtained were recorded separately, grouped and coded, and three different experts were asked to evaluate them independently of each other, and their final form was prepared for analysis according to the evaluations of the experts. With the content analysis,

themes were determined for each question and the frequencies and percentages of the given themes were calculated and tables were created. Descriptive analysis was used to evaluate the data. Finally, a report was made and the findings were presented.

## **Findings and Interpretation**

Table 2. The distribution of the opinions of the research group about what they do when there is a fight or argument among the students.

Themes	n	%
We intervene ourselves.	10	50
I warn	6	30
I will direct you to the counseling service	2	10
I will refer you to the school administration	2	10
Total	20	100

In Table 2, the distribution of the opinions of the research group about what they do when there is a fight or argument among the students is given. Considering the opinions of the participants, 4 themes emerged. Among these themes, according to the order of percentage, we intervene ourselves (50%), warn (30%), refer to the guidance service (10%), and refer to the school administration (10%) themes came to the fore.

Table 3. The distribution of the opinions of the research group about the behaviors of the students who are not interested in the lesson.

Themes	n	%
I do different activities.	8	40
I give duties and responsibilities	7	35
I'm meeting with the parent	3	15
I'm meeting with the administration.	2	10
Total	20	100

In Table 3, the distribution of the views of the research group regarding the behaviors of the students who are not interested in the course is given. 4 themes emerged in the distribution of the participants' views on their behavior towards students who are not interested in the lesson. According to this; I have 8 teachers (40%) doing different activities, 7 teachers (35%) I assign duties and responsibilities, 3 teachers (15%) I talk to parents, 2 teachers (10%) stated that they met with the administration.

Table 4. Distribution of the views of the research group about the attitudes they have developed towards the students who do not attend the lesson.

Themes	N	%
I try to get your attention	12	60
I warn	5	25
I pay attention to individual differences	4	20
I punish	1	5
Total	80	100

Table 4 gives the distribution of the views of the research group about the attitudes that the research group has developed towards the students who do not attend the lesson. Four themes emerged from the opinions of the participants. Among these themes, it was seen that the themes such as I try to attract his attention (60%), I warn him (25%), I pay attention to individual differences (20%), I punish (5%) come to the fore.

## **Results and Discussion**

When we look at the opinions of the research group about what they do when there is a fight or argument among the students; It was observed that while teachers stated that they intervened, they warned from time to time. In addition, the participants students; They stated that they directed them to the guidance service and directed them to the school administration. Kılıç-Özmen (2009) determined that teachers' coping ways in the face of undesirable behaviors are "talking one-on-one, verbal warning, reminding the rules, talking to their family, saying that they are sorry for their behavior (me-language)". In the study of Çanakçı and Çankaya (2011) on the

other hand, the methods used by teachers in the face of undesirable student behaviors are "providing psychological support, getting angry", "warning", "guiding", "providing family support", "frightening", "rewarding" and "giving responsibility". have been determined. When the views of the research group on the behaviors of the students who are not interested in the lesson are examined; stated that they had different activities done, assigned duties and responsibilities, and talked to the parents and the administration.

When we look at the views of the research group about the attitudes developed towards the students who do not attend the lesson; Most of them stated that they tried to attract the attention of the students. In addition, some teachers stated that they warned the students, paid attention to individual differences and punished them. In the study of Elban (2009), the methods most used by teachers in the face of undesirable student behaviors are; He stated that "to teach the lesson in a way that attracts the attention of the student", "to deal with the student one-on-one", "to reward the student for his positive behavior", "social activities", "to be in cooperation with the school, family and teacher".

## **Conclusion**

As a result, the teachers stated that when there was a problem among the students, they solved it among themselves and verbally warned the students who were trying to disrupt the classroom order. In addition, they stated that they had different activities for students who were not interested in the lesson. In addition, it was concluded that the research group carried out activities in that direction by considering the individual differences of all students in terms of ensuring the unity of the class.

## **Recommendations**

Whether the subject and question distribution of the physical education teacher field exam are adequately met within the framework of teaching profession knowledge on the basis of field should be reviewed should be passed.

## **Acknowledgements or Notes**

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## **Scientific Ethics Declaration**

The authors declare that the scientific ethical and legal responsibility of this article published in EPESS journal belongs to the authors.

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### Author Information

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**Huseyin UZUM**

Orhan Sevinç Vocational and Technical Anatolian High School, Gaziantep, Turkey  
Contact e-mail: husyn\_27@hotmail.com

**Fikret ALINCAK**

Gaziantep University Faculty of Sports Sciences, Gaziantep, Turkey

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## **Overview of Concepts Covered Financial Literacy in Education**

**Erol KOCOGLU**  
Inonu University

**Abstract:** Financial literacy is a complex structure that includes many attitudes and behaviors, including financial knowledge and skills, as well as access to financial services. There are many definitions of financial literacy in the literature because it contains many knowledge, skills and attitudes and has a complex structure. Financial literacy can be defined as the ability of individuals to have information about key financial concepts such as budgeting, savings, borrowing and investment and to use this information in their decisions. Also, financial literacy is the ability to use basic economic and financial concepts as well as the knowledge and skill to manage financial resources for a lifetime of financial well-being. Two basic elements stand out in financial literacy. The first is that consumers have the knowledge and skills to use financial resources effectively in order to ensure and maintain their financial well-being, and the second is that consumers have the self-confidence and motivation to evaluate this knowledge and skill. From this point of view, this study aims to evaluate the concepts of financial literacy, which has become increasingly important in the education process in recent years, with the support of literature. The reflections of these concepts in the education process were interpreted by the researcher and suggestions were developed regarding the study subject.

**Keywords:** Education, Finance, Financial Literacy, Assessment.

### **Introduction**

Financial literacy is a complex structure that includes many attitudes and behaviors, including financial knowledge and skills, as well as access to financial services (The Organization for Economic Co-operation and Development [OECD], 2015). There are many definitions of financial literacy in the literature because it contains many knowledge, skills and attitudes and has a complex structure.

Financial literacy is “the ability to use basic economic and financial concepts, as well as the knowledge and skills to manage financial resources for a lifetime of financial well-being” (Hung, Parker, Andrew, & Yoong, 2009). According to Remund (2010), financial literacy is “the ability to know and have basic financial concepts in order to make short-term financial decisions and long-term plans, taking into account living conditions and changing economic conditions.” Two basic elements stand out in financial literacy. The first is that consumers have the knowledge and skills to use financial resources effectively in order to ensure and maintain their financial well-being, and the second is that consumers have the self-confidence and motivation to evaluate this knowledge and skill (Central Bank of the Republic of Turkey[CBRT], 2017).

In recent years, depending on the advancement of technology, the ease of access to financial services, the increase in digital financial products and services, the increase in frauds over the internet such as phishing have revealed a new skill called digital financial literacy (Morgan, Huang, & Trinh, 2019). Thanks to technology, individuals can benefit from many financial opportunities such as making payments through mobile services, transferring money, applying for loans and making investments (Fettahoğlu & Kıldız, 2019).

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## **Method**

In this study, in which the type of concepts covered financial literacy was evaluated in the education process, the qualitative research method was used and it was shaped by the document analysis model. In document analysis, data is obtained by examining existing records and documents. Document analysis includes the processes of finding, reading, taking notes and evaluating resources for a specific purpose (Karasar, 2005).

In other words, document analysis is a series of processes that take place in the process of examining and evaluating printed and electronic (computer-based and internet-enabled) materials (Bowen, 2009). The process is also defined as the examination of written materials containing information about the phenomenon or phenomena that are aimed to be investigated (Yıldırım & Şimşek, 2013).

## **Results and Discussion**

Financial literacy is a concept consisting of knowledge, attitude and behavior. In order for an individual to be financially literate, having basic financial knowledge such as budget, insurance, savings, investment, credit, interest, inflation; It is necessary to use money carefully, to consume it sparingly, to have an attitude of saving for the future, and to be in a behavior that carefully evaluates shopping, savings and investments (Alkaya & Yağlı, 2015).

It can be said that many remarkable concepts related to the concept of financial literacy are used in the education process. These concepts are given in Figure 1 below.



Figure 1. Concepts related to financial literacy

The use of these concepts in education is very important in the transfer of economy-based gains. Regarding financial literacy, it can be said that examining these concepts separately will contribute to the learning of this type of literacy in a concrete and meaningful way. These concepts, especially finance-based, are among the most important factors shaping the world in the 21st century. For this reason, these concepts should be gained to the students in the learning environment with various gains and activities in the education process. Some of these concepts are detailed below.

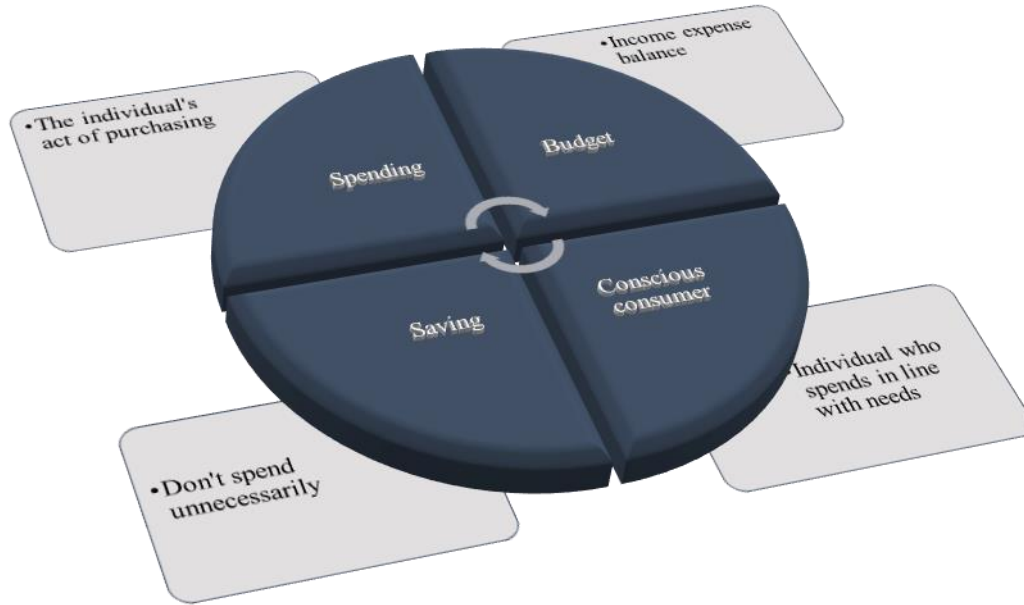


Figure 2. Definitions of financial literacy concepts

## Conclusion

Financial literacy is a life skill that includes financial knowledge, attitude and behavior and has become increasingly important in recent years. Financial literacy plays a major role in individuals' knowledge of budget, savings, investment, making the right financial decisions and leading a comfortable life. The contribution of family, environment and school is great in gaining financial literacy.

In order to gain this subject, the basic concepts related to the subject must be gained in a meaningful way. Especially in 2008, the economic crisis, which was effective throughout the world, revealed the importance of the concepts related to financial literacy education. In recent years, financial literacy has started to take its place in formal education programs in many countries, especially in developed countries. These literacy-related competencies, which have started to take place in the programs, should be brought to the teachers who are the managers of the learning environment. Therefore, it can be said that this issue is very important in teacher education.

## Scientific Ethics Declaration

The author declares that the scientific ethical and legal responsibility of this article published in EPESS journal belongs to the author.

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### Author Information

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**Erol KOCOGLU**

Inonu University Faculty of Education, Malatya, Turkey  
Contact e-mail:erol.kocoglu@inonu.edu.tr

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**IConSE 2021: International Conference on Science and Education**

## Activity Planning in Social Studies and Fake News Activity Examples

**Sule EGUZ**  
Inonu University

**Abstract:** To achieve the goals determined in social studies teaching, some principles should be followed in the planning and implementation of educational situations. Along with arranging the educational environment and content, the teacher should know the social studies teaching principles and perform the activities in accordance with these principles. Activities planned in this direction not only enrich the teaching environment, but also help the student to socialize, gain the habit of working in line with his interests and needs, and develop his personality. In addition, it facilitates learning by making students an active member of the learning environment by planning activities by taking into account the social studies teaching principles, offering options suitable for students' individual differences and giving instructions, helping students make their own decisions, and creating an active learning environment in the classroom. The emergence of the Internet and social media has significantly changed media coverage and perception and understanding current concerns about fake news has required considering the new social dynamics brought by new media technologies. While media technologies have great promise for learning, young people need support and training to learn to make the right decisions as they navigate the digital world. In this sense, it is thought that the suggested activities will be guiding for students.

**Keywords:** Social studies, Activity, Planning, Fake news

### Introduction

One of the most important stages of the teaching process in social studies is to design an activity. Activities can be designed to realize new learnings, reinforce learned information, eliminate difficulties, correct misconceptions and raise awareness about information sources. However, although activity design may seem easy, it is a difficult process that needs careful attention. Since the effects of social studies activities on the development of understanding and thinking skills are important, learning activities should be target-oriented, planned and implemented with great care.

Activities in social studies teaching enable students to arouse their curiosity and question their priorities and to perceive social-global activities from different aspects. In addition, it enables students to develop their problem solving, research and communication skills, ensures that what is learned is permanent and meaningful, enables students to develop positive attitudes towards social studies, and is effective in their orientation to a profession in the field of social studies. In this context, activities such as concept maps, educational games, finding slogans, prioritizing, preparing a poster, designing a newspaper page, travel-observation, word association can be used in the social studies lesson. Activities planned to be implemented in social studies; it should be aimed at learning, take into account individual differences, help to think and create individual meaning, put the student in the center, be original; should support cooperation. In addition, the activities that students will be active in should include materials that allow them to model, appropriate to their level and prior knowledge, related to daily life, interesting and thought-provoking, and should be aimed at eliminating the difficulties of the student in the learning process in a way that appeals to more than one sensory organ.

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Media technologies used as a source of information have changed over time, developed and increased in use. As the access and use of these technologies at home and school increases, so does the need to support students' understanding of how to be safe, responsible and collaborative digital media users. The emergence of the internet and social media has significantly changed media coverage and perception and understanding current concerns about fake news has required considering the new social dynamics brought by new media technologies (Mason, Krutka & Stoddard, 2018). The lack of transparency of news experiences on media platforms, the fragility of individual experiences and media manipulation have created a fertile ground for fake news (Bulger & Davison, 2018; Figueira & Oliveira, 2017; Fuchs, 2014; Hands, 2013; Marwick & Lewis, 2017). Activities applied in learning environments can be beneficial in order to provide students with a critical perspective on fake news in the media and to develop a consistent understanding of the media environment. While media technologies have great promise for learning, young people need support and training to learn to make the right decisions while navigating the digital world. Based on this fact, it is aimed to present examples of activities that are thought to provide the development of students' critical thinking and decision-making skills against fake news in the media in an appropriate theoretical framework.

## Method

This study is a descriptive study in the screening model, which includes activity suggestions prepared to create activities that will enable the development of students' critical thinking and decision-making skills against fake news in the media. The data were obtained by using domestic and foreign scientific publications on social studies teaching, activity planning, critical thinking skills and decision-making skills, social studies course and workbooks for all levels, and social studies curriculum. As a result of the examination of the data sources, a framework was formed on what should be considered in the activities to be designed; Activities aimed at improving students' critical thinking and decision-making skills against fake news have been tried to be created with an understanding in line with this framework.

## Findings

Within the scope of the findings, two examples of fake news activities (True or False? and News Hunter) that can be used in the social studies course are presented.

**Activity Name:** True or False?

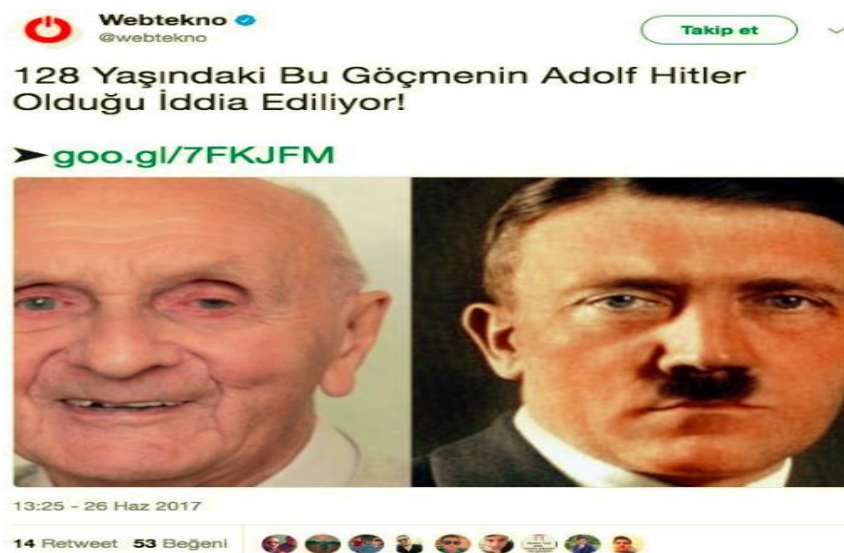
**Time:** 40 minutes

**Class:** 8

**The Basic Question to Ask:** What is the source of the news?

**Materials:** Computer, network connection, projection

**Implementation of the Activity:** A fake news received on Twitter is reflected on the projection screen and read. The news content is below:



Picture 1. Fake news example (<https://twitter.com/teyitorg/status/880359667578306565>)



An old man living in Salta, Argentina, allegedly was the German dictator of the time, Adolf Hitler. The fact that the 128-year-old man spent the last 70 years in hiding increased the truth of these claims.

The German immigrant announced that he came to the country in 1945 with a passport identifying Herman Guntherberg. There are a lot of rumors about the immigrant who entered Argentina with a fake passport right after the end of the war, that he was the former Nazi leader Adolf Hitler. This immigrant emerged last year after the Israel secret services stopped tracking former Nazi war criminals and said:

" I have committed many crimes in my lifetime. I had to spend more than half of my life hiding from the Jews, so I took my punishment more than enough." (<http://haberler.com/128-yasindaki-yasli-gocmenin-adolf-hitler-oldugu-9768917-haberi/>)

After this news content is given to the students, the following questions are asked:

- When you saw that this news was on the agenda on twitter, how would you comment under this news from your own twitter address? (Positive/Negative)
- How do you think these comments affect the feelings of the German immigrant?
- What will be the fate of the negative comments directed to German Immigrant when the news turns out to be not true?

After getting the answers to these questions, have students use Google (or other search sites) to see what they can find about themselves online. Determine if students have encountered any disturbing or worrying content about them. Then discuss how to deal with negative content when they encounter it.

**Activity Name:** News Hunter

**Time:** 40 minutes

**Class:** 6

**The Basic Question to Ask:** How do you determine the accuracy of the news?

**Materials:** Computer, network connection, projector, images from different newspaper news, white paper, glue, colored pencils.

**Implementation of the Activity:** The class is divided into two groups. White paper, glue, pencils and images from different newspaper news are randomly distributed to the first group, and they are asked to individually write news content consisting of 3 sentences suitable for these images (The introductory sentence of the news is included in the given images). Examples of images given are below:

#NASA bu kez Ay'a ya da Mars'a değil Güneş'e şempanze yolluyor! Sebebi ise... [hry.yt/grQYV](http://hry.yt/grQYV)



Picture 2. The image used in the activity (<https://listelist.com/viral-yanis-haberler/>)



Picture 3. The image used in the activity (<https://tr.euronews.com/2021/07/08/ingiltere-turkiye-yi-k-rm-z-listede-tutmaya-devam-etti-turkler-imza-kampanyas-baslatt>)

Participants are given 15 minutes for the procedures to be done. Then, the news cards prepared by the first group are randomly distributed to the second group. The second group is asked to write two suggestions about how they will follow in order to determine the accuracy of the news.

After the implementation phase is completed, the suggestions made by the second group are read aloud in front of the class and the suggestions for accessing the right information are discussed. In addition, the participants are informed about the copyright of the images used, and the contents of the newspaper news, in which the images are based, are reflected with the help of projection and compared with the news content written by the students.

## Conclusion

Considering the fact that the primary purpose is to provide the development of critical thinking and decision-making skills in order for students to learn to make the right decisions while navigating the digital world during the social studies education and training process, it is aimed in this study to present the activity examples that are thought to provide the development of these skills in an appropriate theoretical framework. In this context, two examples of fake news activities are presented.

Rather than correcting misinformation, teaching viewers to be skeptical may be a more effective approach to combating fake news (Lee, 2018). Teachers can use fake news in the media to develop not only stronger scientific thinking, but also students' critical thinking, decision-making, research, enhanced communication skills, and encourage science-focused civic engagement. As a matter of fact, the structure of the activities used in the classroom environment has a very important place in students' critical thinking and the emergence of different thinking structures. Therefore, it can be said that learning can be more permanent and meaningful if well-designed activities are used correctly and appropriately within the social studies curriculum.

## Scientific Ethics Declaration

The author declares that the scientific ethical and legal responsibility of this article published in EPESS journal belongs to the author.

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*Internet Resources*

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- <https://twitter.com/teyitorg/status/880359667578306565>

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### **Author Information**

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**Sule EGUZ**

Inonu University, Education Faculty, Department of Social Studies Education, Malatya, Turkey  
Contact e-mail: [suleeguz@gmail.com](mailto:suleeguz@gmail.com)

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**IconSE 2021: International Conference on Science and Education**

## Educational and Cultural Policies of the Karakhanid Period

**Ozkan AKMAN**

Suleyman Demirel University

**Hayati SAMUR**

Ministry of Education

**Abstract:** The fact that the Karakhanid Turks adopted the Islamic faith brought new features to education. One of these innovations was the opening and expansion of institutions called "madrasah" for the first time in Turkish societies and where education was carried out in a certain plan, program and order. Another important feature of this period is that the Turks have passed from the oral culture they continued before Islam to the written culture and they have entered the process of transition from the nomadic society structure before Islam to the fully settled society structure. In these established madrasas, besides religious education such as the Qur'an, kalam and Hadith, medicine, mathematics, astronomy, philosophy, logic, etc. The teaching of the courses also allowed many scientists and thinkers to be trained in this period. In addition, the support of the Karakhanid rulers to such developments caused cities such as Kashgar, Bukhara, Samarkand, Tashkent, and Balasagun to become science-cultural centers in a short time. In this period, the comments and opinions of important scientists and thinkers about education caused a turning point in terms of Turkish education history. The aim of this study is to determine the educational and cultural policies of the Karakhanid period. The research was carried out with content analysis, one of the qualitative research methods. The data of the research was carried out by scanning the relevant literature that sheds light on the Karakhanid Period. The given analysis was done by creating a category with the coding technique. According to the data obtained; The works of Farabi, Ibn Sina, Yusuf Has Hacıp, Kaşgarlı Mahmud, Ahmet Yesevi and Edip Ahmet Yuknevi, who are important figures of the Karakhanid Period, and their contributions to science are explained with examples.

**Keywords:** Karakhanid Period, Turkish Education History.

### Introduction

The fact that the Karakhanid Turks adopted the faith of Islam brought new features to education. One of these innovations was the opening and expansion of institutions called "*madrasah*" for the first time in Turkish societies and where education was carried out in a particular plan, program, and order. Madrasa comes from the Arabic root "*derase*" and means "*the place where the lecture will be given and the building where the student sits and lectures*". However, the word madrasah was not used for educational institutions in the first period of the Abbasids. Although this word was first used in the 9th century, the establishment of Madrasahs with an official organization and state initiative was only implemented in the 10th century in the period of the Karakhanids (Hızlı, 1987). Another significant change was the new additions to the moral understanding, world view, values, and customs of the Turkish society that came with the change of religion. These innovations have been cultivated by blending with the religion of Islam (Akyüz, 2020). In addition, as of this period, the influence of Islam began in the daily lifestyles, beliefs, and philosophies of the Turks. Another essential feature of this period is that the Turks passed from the oral culture they continued before Islam to the written culture, and they entered the transition process from the pre-Islamic nomadic society structure to a fully settled society structure (Doğan, 2012).

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In these established madrasas, besides religious education such as the Qur'an, kalam, and Hadith, there was also scientific education such as medicine, mathematics, astronomy, philosophy, logic, etc. (Şanal & Alaca, 2020); the teaching of such courses allowed many scientists and thinkers to be the emergence in this period. In addition, the support of the Karakhanid rulers to such developments caused cities such as Kashgar, Bukhara, Samarkand, Tashkent, and Balasagun to become science-cultural centers in a short time (Akyüz, 2020). Moreover, the love of the science of the Karakhanid rulers had prepared a suitable environment for the proliferation of scientists in their country to develop science. For example, Buğra Han Harun, İlig Han Nasr, Yusuf Kadir Han, Arslan Han, etc., such as rulers; were just, benevolent rulers who respected and protected the scholars. As a result, scholars and artisans from all regions came to their circle. At the same time, educational institutions were spread all over the country. There were two other reasons besides the love of science for the Karakhanid rulers to attach great importance to the establishment and spread of madrasahs. The first was to use the new Muslim Turkish tribes to reinforce the new belief system and make them lose their old beliefs, which conflicted with their newly adopted religion, through madrasahs. Secondly, it was to benefit from the madrasahs as a means of preserving and keeping their Sunni Hanafi beliefs alive against the Shiites around their geography (Akyüz, 2020). For the Middle Ages Central Asia, science refers to the movement that developed in the Islamic world between the 7th and 16th centuries in the history of science. It is known that scientists who lived and worked in the geography of Central Asia contributed a lot to the modern scientific world and developed solutions to many problems of their time (Kim, 2009).

## **Method**

This research was prepared by using the document analysis technique, which is one of the qualitative research methods. Document analysis includes the analysis of written materials containing information about the case or cases that are aimed to be investigated. Document analysis is a data collection technique that is indispensable for almost every research. There are a number of steps that can be followed when performing a document review. However, these steps should be considered more as a general guideline. Each researcher can reinterpret these stages depending on the nature of the research problem, the data he aims to obtain as a result of document review, or how comprehensively and deeply he wants to examine the documents. For this purpose, scientists who shed light on the field of education and science during the Karakhanids period were examined under the headings.

## **Results and Discussion**

### **Leading Names of the Period and Their Opinions on behalf of Education and Knowledge**

#### **Al Farabi**

Farabi wrote many works on behalf of his scientific studies, to which he devoted his life. They have been written on many topics, from philosophy to logic, metaphysics to ethics and political science, and physics to music (Hammond, 2001). Although Farabi did not write any work titled "education", it is possible to come across his ideas about education in many of his works (Yeşilçayır, 2021). According to Akyüz (1982), Farabi is the first thinker known to have put forward views directly related to education in the history of Turkish education. According to Farabi, there are three types of educators. One of them is the head of the family and is the educator of the family members. Another educator is a teacher and is responsible for educating children and young people. Finally, another educator is the ruler himself, and he is the educator of his nation. Farabi's view on the classification system of science is that he has inferences made with a comprehensive view of the materials based on Islamic educational philosophy. According to this point of view, within the scope of the Islamic philosophy of education, students' empiricist understanding of science, rational science, and intuitive science; encourages them to learn every knowledge beneficial to them and humanity. In this context, attitudes and actions are shaped by science practice and theory together with practice. Thus, educational studies include not only conceptual but also attitude and behavior fields. Farabi believes that the reflection of the concept of perfection for a person occurs in a person who is in a synergy of theoretical knowledge with practical applications, essentially with applied knowledge. From this point of view, the definition of a perfect person is based on the unity of actions and words, theoretical, practical, mental, and moral systems to achieve happiness (Widiawati, 2019). According to Farabi, education is a means of gaining a set of values, knowledge, and practical skills to individuals in specific periods and cultures. Such an existing goal leads the individual to perfection because, according to Farabi, humankind was created to achieve this perfection, and the highest level of perfection for people is happiness; the perfect person knows the theory of virtue and applies this theory in

daily practice (Akmalia & Sauri, 2020). For Farabi, learning should start with the language and the structure of that language. Because of without this necessary ability, one can understand neither people nor themselves. The personalities of those who fail this essential training will not develop properly either. According to Farabi, learning logic comes after the language learning process, which he describes as primary education. The curriculum that Farabi refers to in this context is a group of sciences formed in the following order: linguistics, logic, mathematics, natural science, theology, civics (political science), jurisprudence, and academic theology. According to Farabi, there is a connection between natural sciences and theology. In addition, the human soul, which he counts among the natural sciences, also has a metaphysical aspect (Rauf, Ahmad & Iqbal, 2013).

### **Ibn Sina**

Ibn Sina was one of the most famous physician, and he was also a philosopher, encyclopedist, mathematician, and astronomer (Gohlman, 1986). According to Ibn Sina, education begins with the birth of the child. According to him, children should go to school at the age of six and be educated until 14. Moreover for Ibn Sina, teachers should research and know each child's talents, interests, and tastes, and they should teach children art or profession suitable for them. According to Ibn Sina, since God is the necessary being, the teacher must also be religious (Kaygısız, 1997). Ibn Sina promotes educational activities that balance the soul to prepare it for intellectual endeavors. It proposes a philosophical preparation that enables young people to participate in the struggle to perfect their thought system and action while at the same time enabling them to resist distractions (Azadpur & Silvers, 2005). In his book "İlm el-Akhlaq", İbn Sina stated that the basis of education should be personal and social preparation education. This view is based on the mutual exchange of services between individuals to contribute to society's social structure, together with the specialization of each result in a craft or science with cooperation. For this reason, education is a way of enabling people to grow in line with their skills and abilities. Ibn Sina's educational philosophy essentially lies in making the body and mind of individuals sturdy, righteous citizens and preparing them for some intellectual activity, mainly concerning craft and traditional science/theoretical science or a practical study (Kayode, Nasirudeen & Al-Hasani, 2016). Ibn Sina also emphasized group education and believed that children should receive education and training with their peers. Expressing that the reason for this is that children learn from each other when they are together; He said that education should be committed in an environment where distinguished children have good manners and good habits. He stated that this situation would benefit moral education, mental development, nutrition, social education, spiritual education, and meeting mental needs (Nejad, Rashidi & Oloumi, 2013).

### **Yusuf of Balasagun (Yusuf Has Hacip)**

Yusuf of Balasagun has an important place in the history of Turkish education with his work named Kutadgu Bilig (1069), which consists of 6645 couplets. According to him, one of the most vital characteristics of an ideal human type is to use the qualities that a person has as they should be and properly. When such a thought is in question, the first thing that comes to mind is language, that is, words. Here, Yusuf of Balasagun's most basic philosophy is the three crucial factors related to the ideal human type: knowledge, language, and moral virtues (Kaya, 2017). Yusuf of Balasagun's poems is also a kind of moral code and norms of behavior in society. A highly educated man, Yusuf of Balasagun also encourages people to specialize in different fields of knowledge. Because according to him, knowledge means to be perfect, and only in this way can individuals resolve complex problems in their life. Continuing the tradition of his predecessors in this sense, Yusuf of Balasagun has created an ideal state theory in which each person is assigned a particular position in the gist of these rules. According to him, people who grow up in this framework (Great people are people who do good deeds) primarily think about the welfare of their people. In return, they do not seek financial rewards and do not expect special thanks for their proper activities. The dominant content in the education systems of Turkish-speaking peoples throughout history has continued in the form of spiritual values, respect for elders, mutual aid, justice, and moral education (Ibrayeva, 2015).

### **Mahmut of Kashgar**

Mahmut was born in Kashgar and belonged to a noble family named Hamir, the counterpart of Amir in the Oghuz tribes. However, the exact date of birth and death of Kaşgarlı Mahmut is not conversant. It is known that he completed his famous book *Divan-ü Lugat-it Türk* in 1071. During the time of Mahmut of Kashgar, the Arabs carried out the studies on language in Islamic geography, and the discussions generally focused on the science of "nahv" (syntax). As a result of different thoughts on Nahw, schools related to this subject were



established. Especially the language debates between the Baghdad and Basra Schools had a strong influence on the Arab world in the 11th century. Considering that the method followed by Mahmut of Kashgar is different from the traditional Arab order, it is possible to say that he was not affected by these discussions, and in this context, he adopted and continued a unique working principle. Mahmut of Kashgar, who saw that the Arabic language came to a vital place with the influence of the religion of Islam, took his place in the history of Turkish education as the scientist who started the first severe studies for Turkish and its teaching in Turkish history (Onan, 2003). Furthermore, Kaşgarlı Mahmut gave the verse "keep the wise person well, listen to their words, learn his virtue and apply it" as an explanation about the importance of "Bilig" (knowledge) in his work (Kaşgarlı Mahmut, Trans. Bozkurt, 2020). In *Divanü Lugati't-Türk*, it is possible to see and access every aspect of Turkish social life and to obtain information for this purpose, and there are traces of family life and many words about the child's growth, development, games, toys, and education, which are the core of the family is remarkable (Batur & Bektaş, 2011).

### **Ahmet Yesevi**

Ahmet Yesevi is the first Turkish mystic who blended it with Turkish customs and spread it to enormous masses in a way that would not contradict the teachings and essence of this religion (Çelikkan, 1996). When Ahmet Yesevi's views on education are examined, according to him, a teacher must be who has reached perfection (well-educated), whose personality is fully formed and mature, who is known for his good manners, far from extremist attitudes and evil, and should be a person who teaches and comprehends information in the best way to his students. In other words, according to Ahmet Yesevi, it can be said that the qualities that an educator must have are as follows: An educator must act in the light of what he has said (taught), must be a very religious person with belief in God, must be away from worldly pleasures and desires, must not work to own property, should know well and be a person of the heart (Erpay, 2016).

### **Edip Ahmet Yükeki**

Although there is not much and precise information about Edip Ahmet Yükeki's life, according to the information available, it is known that he lived in the 12th century. Edip Ahmet Yükeki tried to teach the society according to Islamic principles, depending on the period he lived in, the transition period to Islam. In addition to being under the influence of Kutadgu Bilig's work written by Yusuf of Balasagun, in his work *Atabetü'l-Hakayık* (the threshold of truth), he also has writings on the ways of being righteous and emphasized various moral principles in his work. He also advised on these principles in his work (Şanal & Alaca, 2020). In this book, the following subjects are mainly mentioned: Knowledge, language, the lie of the world, modesty and arrogance, generosity and parsimoniousness, greed, generosity, ignorance, hilm (calmness), and corrupt behavior of the period (Ertürk, 2017; Korkmaz, 2020). According to *Atebetü'l Hakayık*, knowledge is the most valuable dinar (currency). Ignorance is the worst thing for humanity. According to Edip Ahmet Yükeki, ignorance has absolutely no value and should be avoided. According to him, intelligence is like a torch that illuminates the darkness. The means of illuminating the darkness of man is knowledge (Özcan, 2020). The presence of this and more advice in Edip Ahmet Yükeki's work, and especially the emphasis that "*ignorance is a dirt that cannot be purified by washing*" shows the importance he gives to education.

### **Conclusion**

The acceptance and spread of the religion of Islam among the Turks brought with it many innovations and radical changes. During the Karakhanid Period, many old behaviors were changed due to the teachings of this new religion, but cultural values were tried to be preserved. Due to the innovations brought by the new religious belief system, scientific studies were associated with God, and this work was seen as a sacred purpose. In particular, they gave importance to science and education so that the Karakhanid rulers of the period could abandon their old belief systems and create an Islamic-based social structure. For this purpose, madrasahs, which are the equivalents of the universities in the Middle Ages in the Islamic geography, were opened in this period, and many more programs and contents, including positive sciences and values education, were implemented in these schools in addition to religious education. From establishing madrasahs to their operation, various rules were determined and placed in a systematic order. This new order, which was realized in this period, allowed many scientists and thinkers to develop. Scientists and thinkers who rise in this period left a permanent mark not only in Islamic geography but also in the world, and their works and teachings became a source of inspiration and a source for the training of many thinkers, researchers, and scientists in the following

years. In the light of all these factors, it can be said that this period has a revolutionary character in Turkish education history. The views of the leading people of this period about education also have an important place in the history of Turkish education.

The valuable views and comments of Farabi, who was called the second teacher after Aristotle, shed light on the history of Turkish education for the period in which he lived. Farabi stated that there are three types of educators and said that teaching should go from easy to difficult and argued that education should start with arithmetic and geometry and continue with other scientific disciplines. He also stated that logic and philosophy should be included in the teaching process. Another genius of this period, Ibn Sina, was described as the third teacher after Aristotle and Farabi. He also conducted research on philosophy and logic, especially medicine. His statement that every child should be educated according to their interests, talents, and skills, and also the qualified and active teacher profile he drew during the education process reveals that he is a thinker beyond his time in terms of education, even if he does not produce a work that covers only educational sciences. The works he wrote in his own time have been studied and read for centuries due to the fact that he was a person beyond his time. Both Farabi and Ibn Sina defined learning knowledge as the way to perfection and happiness and stated that other branches of science should be taught in addition to Islamic education in their period. They also stated that the sole purpose of people in the world is to reach happiness and perfection by maximizing their abilities. The other vital names who lived in this period, Yusuf of Balasagun, Mahmud of Kashgar, Ahmed Yesevi, and Edip Ahmed Yukneki, stated that knowledge and science were a crucial lofty goal in addition to religious education. Arguing that moral and spiritual values are at the core of education, they stated that these values are essential for a solid and orderly social structure. In this period, scientists and Thinkers saw ignorance as humanity's greatest enemy and adopted fighting ignorance as a sacred goal.

In this period, radical changes were made in education with the influence of Islam, and innovations were adopted in accordance with the rules of Islamic religious belief. There is no doubt that this period is a turning point in Turkish education history because these changes in this period became the turning point of the new Turkish education history, which will continue for centuries in the future.

## **Scientific Ethics Declaration**

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### Author Information

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**Ozkan AKMAN**

Süleyman Demirel University, Faculty of Education,  
Isparta, Turkey

Contact mail: [ozkanakman@sdu.edu.tr](mailto:ozkanakman@sdu.edu.tr)

**Hayati SAMUR**

Ministry of Education, Turkey

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## **Examination of Mothers' Opinions Regarding Children's Digital Playing**

**Fikret ALINCAK**  
Gaziantep University

**Abstract:** The first periods of human life are defined as critical periods by educators. The child's recognizing and making sense of the outside world usually starts in this period and the child harmonizes this process through play. Especially in childhood education and development, play is an indispensable part of life for children. While technological developments make life easier in many areas, they sometimes make people addicted. Therefore, with the widespread use of digital games, a computer addiction occurs in society. The aim of this study is to reveal the views of mothers about children playing digital games. The research is a qualitative study. The research group consists of 30 mothers and this study group was determined by the maximum variation sampling method. In the study, face-to-face interview technique was used on a voluntary basis with 10 mothers who have children under 6 years old. In the research, using the interview method, which is one of the qualitative research methods, the data obtained were analyzed by the content analysis method. As a result of the research, mothers see play as a means of entertainment, socialization and education in terms of children's development. In addition, the research group stated that they could not spare time for children due to intense daily working conditions and children tended to digital games. They stated that when digital games are mentioned, they think of computer, telephone and technological games. As a result, mothers stated that digital games affect the development of children negatively and create addiction in children. In addition, it has been concluded that mothers, digital games create a lack of communication in children, keep them away from social life and slow down their social development.

**Keywords:** Child, Digital Game, Mother.

### **Introduction**

From the existence of humanity to this day, the concept of game is one of the most satisfying resources that continues with some changes and development (Tuğrul, 2010). It is observed that individuals are in various movements towards achieving their goals within game activities (Ayan, Alıncak & Tuzcuoğulları, 2015). Play is the most effective period of childhood. In this sense, the child, who is in new relationships and tries to understand what is happening around him, does this through play (Koçyiğit & Tuğluk, 2007). Although it is perceived differently by adults, play is an important and serious occupation for the child. The child's approach and observation of the outside world starts in this period and harmonizes this process with children's play activities. In this sense, the concept of play is very important in the development and education of children (Aydın, 2008; Karabaş & Alıncak, 2019).

He suggests that by allowing children to play activities to express themselves, their creative abilities will emerge significantly and lead to an increase. The child gets acquainted with the concept of play in every way (Timmons, 2003). According to Montessori, play is one of the most important tools for the development of the child (Kayılı, 2010). Huizinga (2013) play is a volitional action or activity that is freely consented, but performed within certain time and place limits in accordance with mandatory rules, has an intrinsic purpose, accompanied by a sense of tension and joy and the consciousness of being 'different from the usual life'.

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Hazar game, (1996) individuals; He defined it as activities performed in his free time outside of his daily work for any goal. Digital games have been defined as computer games, video games, and electronic games since the mid-1980s. define computer games are widely used in Turkey (Binark and dairy Bayraktutan, 2008: 42). Digital games include arcade games, computer games, console games, mobile games and all different genres. (Yengin,). Postman states that the children's games we could see on the streets in the past have disappeared and even the thought of children's games has been erased from minds. Because children understand very quickly the types of games played by young people and adults on computers and even participate in online games with them (Kıran, 2011).

This study was prepared to evaluate the parents' views on children's digital games. For this purpose, answers to the following questions were sought:

1. What are your thoughts on digital gaming in general?
2. How do digital games affect children's development?

## **Method**

The case study design, one of the qualitative research methods, was used in the study. Qualitative research is a method that offers the researcher flexible movement, and offers different approaches in data collection method, analysis, and research patterning according to quantitative research (Gay, Mills, & Airasian, 2006). The case study is a research design that examines the researched case within its own life frame, is used in cases where the boundaries between the case and its environment are not clear and where there are more than one evidence or data source (Yin, 1984; Yıldırım & Şimşek, 2013).

## **Preparation and Application of the Open-Ended Questionnaire**

The interviews and related literature from the acquired know the result of the interview form wearing draft was obtained. One of the logical ways used to test the k apsam validity of the measurement tool prepared for the research is to seek expert opinion (Büyüköztürk, 2006 ). Interview form prepared the final version of the Ankara Provincial i from the various games room and playground located in 30 parents applying data were obtained. During the application, the purpose of the research was explained to the participants, and they were informed about the importance of their answers. As a result of the answers given by the participants to the measurement tool, multiple statements were collected under common themes.

## **Analysis of Data**

The data obtained from the interview form used in the study were analyzed using the content analysis method used in qualitative research. In qualitative research, content analysis is used to create and analyze themes that are not theoretically obvious and sub-themes, if any (Yıldırım and Şimşek, 2006). The obtained data were recorded separately, grouped and coded. This grouping s presented and coding experts, the experts were prepared for analysis by both classified Cutting off states. Made with content analysis he determined to run themes questions and frequencies and percentages given theme he esaplanarak tables have been created. Evaluation of the data betaine imsel analysis was used. Finally, the report was made and the findings were presented.

## **Findings and Interpretation**

Table 1. Distribution of the research group's views on digital games in general.

Themes	n	%
PC games	28	23.8
Technological games	25	21.2
Phone games	24	20.4
Tablet games	23	19.4
Television games	18	15.2
Total	118	100

Table 1, shows the distribution of the research group's opinions on digital games in general. Considering the general opinion of the participants about digital games, 5 themes emerged. It was observed that the participants expressed more than one theme. According to the percentage ranking among these themes, it was observed that computer games (23.8%), technological games (21.2%), phone games (20.4%), tablet games (19.4%), television games (15.2%) were the most prominent.

Table 2. Research group of other social children of built-in digital game how it impacts their development distribution of opinion on.

Themes	N	%
Negatively affects	24	17.3
It prevents communication with the external environment	22	15.9
Emotional development slowed	22	15.9
Is addictive	19	13.7
Leading to violence	16	11.5
Lack of communication	15	10.7
Taking away from life	15	10.7
Affects positively	6	4.3
Total	139	100

Table 2 shows the distribution of the general opinion of the research group about how digital games affect children's social development. The participants how their children's social development impact of digital games as his views on 8 has emerged theme. It was observed that the participants expressed more than one theme. According to the percentile rankings between these themes, adversely affect (17.3%), is blocking communication with the external environment (15.9%), emotional development slowed (15.9%), creating dependency (13.7%), to direct violence (11.5%), Lack of communication (10.7%), distancing it from life (10.7%) and positively affecting it (4.3%) themes came to the fore.

## **Results and Discussion**

When we look at the opinions of the research group about digital games in general, they state that the majority of them are computer games and technological games. Again, the research group of digital games; They stated that there are computer games, technological games and phone games. Besides, parents participating in the research about digital games; They stated that they are tablet and television games. Based on these views, it can be said that when it comes to digital games, people generally come to the fore with computer and phone games. (Erboy and Akar Vural, 2010; Sakin, 2007; İşçibaşı, 2011). In their studies, digital games, desktop and laptop games, telephone, etc. They stated that it was a game played with electronic devices.

Considering the general views of the research group on how digital games affect children's social development, eight themes emerged. In general, it is stated that digital games affect children negatively, prevent communication with the external environment and create addiction. In addition, the research group stated that digital games direct children to violence, create a lack of communication and distance them from life. In this sense, it can be said that digital games slow down children's social development and have negative effects on children. Grennfield (1996) found in his study that digital computer games experience deficiencies in the socialization process of children. In addition, Kars (2010) stated in his study that digital games slow down the development of children in many ways.

## **Conclusion**

As a result of the research, mothers see play as a means of entertainment, socialization and education in terms of children's development. In addition, the research group stated that they could not spare time for children due to intense daily working conditions and children tended to digital games. They stated that when digital games are mentioned, they think of computer, telephone and technological games. As a result, mothers stated that digital games affect the development of children negatively and create addiction in children. In addition, it has been concluded that mothers, digital games create a lack of communication in children, keep them away from social life and slow down their social development.

## Recommendations

Whether the subject and question distribution of the physical education teacher field exam are adequately met within the framework of teaching profession knowledge on the basis of field should be reviewed should be passed.

## Acknowledgements or Notes

Thanks to those who contributed

## Scientific Ethics Declaration

The author declares that the scientific ethical and legal responsibility of this article published in EPESS journal belongs to the author.

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### **Author Information**

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**Fikret ALINCAK**

Gaziantep University Faculty of Sports Sciences,

Gaziantep, Turkey

Contact e-mail: [alincakfikret27@gmail.com](mailto:alincakfikret27@gmail.com)

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## Development of Educational Math Game

**Ali CETIN**

Isparta University of Applied Sciences

**Ebru YILMAZ INCE**

Isparta University of Applied Sciences

**Abstract:** The game is an entertainment activity where people who start with the history of humanity have a good time in their spare time. Thanks to the innovations offered by technology in the digital age, people spend their free time in virtual environments. These virtual environments are social media, news sites, video channels as well as digital games. While digital games are a favorite leisure activity for adults, young people are more likely to spend time with digital games. The educational-themed preparation of games, which are currently indispensable leisure time activities for young people, enables them to learn while having fun. It is important to develop educational digital games and present them to young people in accordance with learning. With this awareness, an educational game with mathematical operations activities was developed in the research. In the study, the developmental research method, one of the design-based research method derivatives, was used. In the research, game development stages and mechanics are explained in detail, and the technologies used are presented.

**Keywords:** Mathematics, Educational computer game, Design-based research, Game-based learning.

### Introduction

The game is an entertainment activity where people who start with the history of humanity have a good time in their spare time. Thanks to the innovations offered by technology in the digital age, people spend their free time in virtual environments. These virtual environments are social media, news sites, video channels as well as digital games. While digital games are a favorite leisure activity for adults, young people are more likely to spend time with digital games. The educational-themed preparation of games, which are currently indispensable leisure time activities for young people, enables them to learn while having fun (Kader et al., 2019).

When educational games are used independently of the classroom environment, they ensure the successful transfer of course content (Garris et al., 2002; Turner et al., 2018). Gee (2003) argued that the principles of learning can be embodied with games, and claimed that the theory of learning is embedded in computer games. In pioneering studies on games, it has been found that students can develop more than one way of thinking about the problems they encounter while playing games (Pivec et al., 2004) and that games provide students with problem-solving experience (Squire, 2005; Pusey, 2018; Shi et al., 2019).

Thanks to the sound effects, realistic animations and three-dimensional virtual environments used in the development of computer games developed in today's technologies, they attract more attention of the players. Studies on the effect of educational computer games on student achievement are current technologies such as augmented reality (Hwang et al., 2016a; Hsu, 2017), mobile software (Tlili et al., 2015; Hwang et al., 2016b; Cheung, 2018), virtual reality glasses (Hu et al., 2016; Sternig et al., 2018) are discussed with three-dimensional games (Bontchev, 2015; Koivisto et al., 2017).

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Mathematics is a field that can be supported by computer-aided studies in terms of subjects such as numbers and operations. Demir and Başol (2014), in the light of the literature they examined, stated that computer-assisted mathematics education contributed positively to mathematics achievement. One of the computer aided applications for mathematics lessons is digital computer games. There are many studies and studies conducted in our country on game development and educational effectiveness in the field of mathematics.

Tuzun et al. (2006) stated that the environment they developed to teach the subject of functions in the game environment, includes activities based on experience, these activities are based on inquiry, the student motivation is high during the activities, the students have opportunities to learn at their own pace, and the environment encourages the learners to cooperate. stated that it can be used in teaching as an effective tool. Çankaya and Karamete (2008) developed two games called Proportional Tetris and Proportional Clown with the subject of ratio-proportion in mathematics lesson. Gökbulut and Yücel Soft (2014) examined the effect of fractions in the field of mathematics on achievement and retention, and found that the game increased the academic achievement in the subject, provided permanence and increased the interest in the lesson in a positive way. Durgut (2016) developed an educational math game for vocational school students and found that playing the game increased the academic success and motivation of the students.

It is important to develop educational digital games using up-to-date technologies and present them to young people in accordance with learning. With this awareness, a three-dimensional educational game with a mathematics theme was developed by examining the studies in the field of mathematics in the light of the relevant literature review.

Students who had to stay away from their schools during the covid-19 pandemic period experienced disruptions in their education in this process. Students sometimes had difficulties in adapting to the process, could not attend online classes due to technical problems or could not enjoy the lessons they attended, thus reducing their motivation to study. With this research, it was aimed to improve the mathematical knowledge of students who were away from their schools during the pandemic period and whose motivation to study in the same way decreased, to revitalize their motivation and learn by having fun. The game, designed within the scope of the research, aims to improve the player's arithmetic knowledge and aims to teach everyone from seven to seventy while having fun.

## **Method**

In this research, the developmental research method, which is one of the design-based research method derivatives, was used. With design-based research, tools that will facilitate learning are designed (Brown, 1992). There are two types of developmental research product or program development, which is a derivative of the design-based research method, and researching the educational aspect of the developed material (Richey et al., 2003). In this research, information is given about the development of the math game.

Unity Game Engine was used for game development and C# was used as the coding language in the game. Game mechanics is a system that includes game rules, game control, interaction between players, story transfer, player experience, game equipment, and player emotions during a game (Lundgren & Björk, 2003). Flow Theory, which was introduced by Chickszentmihalyi in 1990, is explained as the ability of the player to challenge and solve the situation in the game. The actor must be successful in order to enter the theoretical flow (Prensky, 2001; Quoted by Facer, 2004). Playing the developed mathematical educational computer game in a three-dimensional environment increases the desire of the users to respond correctly to the situations they encounter and their motivation to complete the tasks.

## **Results**

The EFM model proposed by Song and Zhang in 2008 got its name from the combination of the initials of the words effective learning environment, flow and motivation. The main purpose of the EFM model is to increase the aspiration throughout the flow. The EFM model aims to increase motivation and increase the level of learning by keeping the student in the flow. While developing the math game for our lesson, student motivation compatible with the EFM model was taken into account.

According to the story of the game, the character student remained in school after everyone left school. The school's security guard did not notice the little boy and locked all the doors and left. The aim of the player is to

open these doors, find the necessary passwords and keycards and exit the school. Level designs are based on the logic of the player solving these puzzles with the various puzzles they contain. This game is puzzle based game mechanics consist of doors, keycards, password system, blackboard, trade, score and inventory.

Doors;

- The player has to use passwords or keycards to open locked doors.
- Door locks can consist of passwords only, keycards only, or both keycard and password.
- Unlocking a door does not grant the player anything other than access to the room.
- The player has to obtain numbers to decode the doors.

Keycard System;

Keycards consist of three stages: Green, Yellow and Red. The main gates are defined as red keycards by default, but are available in various level designs.

- a. Red and Green
- b. Red and Yellow
- c. Red and Red

They can be designed in such a way that they need more than one keycard and additionally a password. When the player clicks on the keycard they find and presses the interaction key, the keycard is added to their inventory. When the player approaches a door that requires a keycard, he sees on the screen which keycard(s) he needs to unlock the door, and as soon as he presses the interaction key, the keycard is deleted from the inventory and placed on the door (Figure 1).



Figure 1. Unlock task

When the player approaches the door that requires a password, it warns that the door is locked and if the player presses the interaction key, the UI (User Interface) screen opens and the player enters the password using the mouse or keyboard on this screen. Passwords are the result of mathematical operations written by the designer. The designer determines the action and the result, and if the player has entered the result correctly, the door opens (Figure 2). A keypad appears on the UI screen that opens, and this screen contains buttons such as “Answer” and “Delete”.

In order to enter the result of the transaction, that is, the password of the door, in the inventory of the player, there must be numbers suitable for that result. For example, “let's set the operation as  $12+24$ ”. In this case, our password will be 36. If the player does not have the numbers 3 and 6 in his inventory, he cannot click on the 3 and 6 buttons on the UI or on the keyboard and receives a warning. That is, the player cannot enter a number that is not in their inventory. The player has to use the system I call BlackBoard to add numbers to their inventory.



Figure 2. Password system

The BlackBoard system actually consists of only one user interface. The window that we see as a blackboard in the game and that opens when we interact helps the character to add, subtract and manipulate numbers in his inventory (Figure 3). There are 2 separate parts in BlackBoard UI. One is the "Get Issue" part and the other is the "Take Action" part.



Figure 3. BlackBoard system

In the action section, the player can change these numbers by adding and subtracting the numbers in their inventory. In the small area next to the screen, he can see the number he entered before. For example, let's say there are two 8's in the inventory. By adding these numbers, he can get the number 16 or subtract 0. This allows the player to manipulate the numbers as they wish. You can make two with the number 16 you get by adding 8 numbers, 5 numbers you have one in your hand, and you can open a door with a password of 55.

In the scoring part, the system asks the player for random addition and subtraction, and the player has to enter the result on this screen, just like entering a password on the door lock. The result written here does not lead to a decrease in the numbers in the inventory. If the result is correct, a random number is given to the player, if it is incorrect, a warning is given and a random action is generated by the system again.

Inventory is the part where the numbers obtained by the player are kept (see Figure 4). In the game, the numbers in the inventory in the upper left and the keycards in the inventory appear in the lower right. There is no limit to the keycards that can be carried in the inventory. However, for numbers, this value is defined as 5 and the

designer can change this value as he wishes. The inventory capacity can be increased from 5 in the first level to 10 in the second level, or power-ups can be used to increase the capacity.



Figure 4. Inventory

## Conclusion

In this study, which was carried out with the awareness of the necessity of developing educational games, the educational game developed in a three-dimensional virtual environment and includes arithmetic mathematical operations. By transferring of educational content to the user with three-dimensional games in current academic studies, there are findings of creating a desire to learn in students, student success and motivation towards the lesson (Durgut, 2016). It is thought that the features of the math game in our lesson, with its three-dimensional virtual environment and educational content, will be used to increase students' arithmetic success and motivation towards mathematics.

Suggestions for improvement in the game are presented below;

- The character can obtain a random or predetermined number from the calculators he finds in the environment,
- The character fills a guess bar by doing unfinished homework that he finds in the environment, and this bar can be made to guess the passwords of locked doors. In other words, there is a possibility that the door will be opened without decreasing the number from the character's inventory, but this depends on the fullness of the prediction bar. A fully filled prediction bar does not give a 100% chance.
- The character is rewarded with points for the door he opens and these points can be used to unlock new actions (in BlackBoard UI) in the game.

## Scientific Ethics Declaration

The authors declare that the scientific ethical and legal responsibility of this article published in EPESS journal belongs to the authors.

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**Author Information**

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**Ali CETIN**

Isparta University of Applied Sciences  
Department of Computer Technologies, Isparta, Turkey

**Ebru YILMAZ-INCE**

Isparta University of Applied Sciences  
Department of Computer Technologies, Isparta, Turkey  
Contact e-mail: [ebruince@isparta.edu.tr](mailto:ebruince@isparta.edu.tr)

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**IconSE 2021: International Conference on Science and Education**

## **Evaluation of Pedagogical Literacy in Education**

**Erol KOCOGLU**  
Inonu University

**Abstract:** Pedagogical literacy can be defined as the competence that enables teachers, one of the most important variables of the learning-teaching process, to make knowledge-based decisions in the selection of pedagogical instruments used in their education life. Pedagogical literacy can also be defined as the capacity of understanding and recognizing the role of pedagogy in education by using the pedagogical thinking and decision-making skills of the teacher as a thinking, producing and criticizing individual in solving the problems he encounters in and around the school. It can be said that pedagogical literacy, which is effective in shaping the development and changes of teacher behaviors in the education process, comes to the fore more in education programs that include text applications that students can easily access, together with meaningful and understandable activities in the learning-teaching process. In this study, the concept of pedagogical literacy was evaluated in detail within the framework of pedagogical knowledge and pedagogical content knowledge. In addition, the importance of pedagogical literacy in the educational process was evaluated by the researcher with the support of the literature.

**Keywords:** Education, Pedagogy, Pedagogical Literacy, Assessment.

### **Introduction**

The concept of pedagogy, in general, shows the interaction in the classroom (Li, 2008), how the teaching is done, how the content is presented and how the lesson is administered (Du, Kou & Coghill, 2008; Anderson-Levitt, 2011), from management and assessment processes to lesson plans, It has an inclusive feature from teaching environments to student characteristics, from teaching method techniques used to teacher qualifications. In addition, the concept of pedagogy has been defined as "the art and science of teaching" by looking at it from a wider perspective (Matuga, 2001). Pedagogical knowledge can be defined as the knowledge of learning and teaching time, practice, strategy, ways or methods in the learning environments where formal education takes place, as well as information containing information about the learning, teaching and evaluation purposes of the students participating in the learning environment (Mishra & Koehler, 2006; Harris, Mishra, & Koehler, 2009; Karakus, 2015).

Pedagogical literacy can be defined as the competence that enables teachers, one of the most important variables of the learning-teaching process, to make informed decisions in the selection of pedagogical instruments used in their education life (Usta & Karakuş, 2016). This literacy can be evaluated within the professional knowledge competence, one of the teacher qualifications included in the Turkish National Education Basic Law No. 1739. It can be said that pedagogical literacy, which is effective in shaping the development and changes of teacher behaviors in the education process, comes to the fore more in education programs that include text applications that students can easily access, together with meaningful and understandable activities in the learning-teaching process (Darling-Hammond & Bransford, 2005; Darling-Hammond, 2006; Kristina, 2010). For this reason, it can be stated that education programs should be organized in a pedagogical context in order to gain these literacy skills more effectively in the learning environment.

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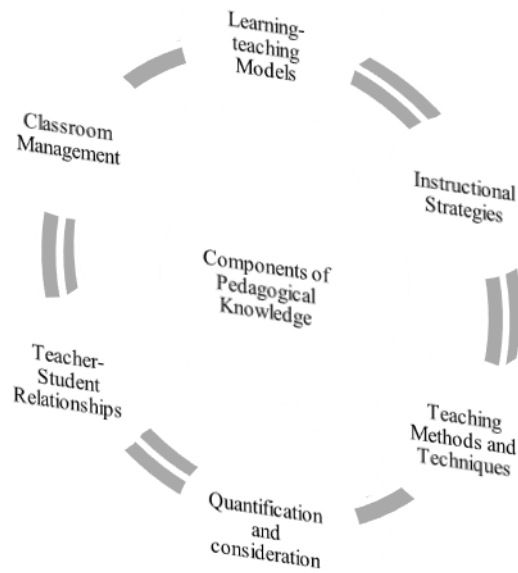


Figure 1. Components of pedagogical knowledge

## Method

In this study, in which the type of pedagogical literacy was evaluated in the education process, the qualitative research method was used and it was shaped by the document analysis model. In document analysis, data is obtained by examining existing records and documents. Document analysis includes the processes of finding, reading, taking notes and evaluating resources for a specific purpose (Karasar, 2005). In other words, document analysis is a series of processes that take place in the process of examining and evaluating printed and electronic (computer-based and internet-enabled) materials (Bowen, 2009). The process is also defined as the examination of written materials containing information about the phenomenon or phenomena that are aimed to be investigated (Yıldırım & Şimşek, 2013).

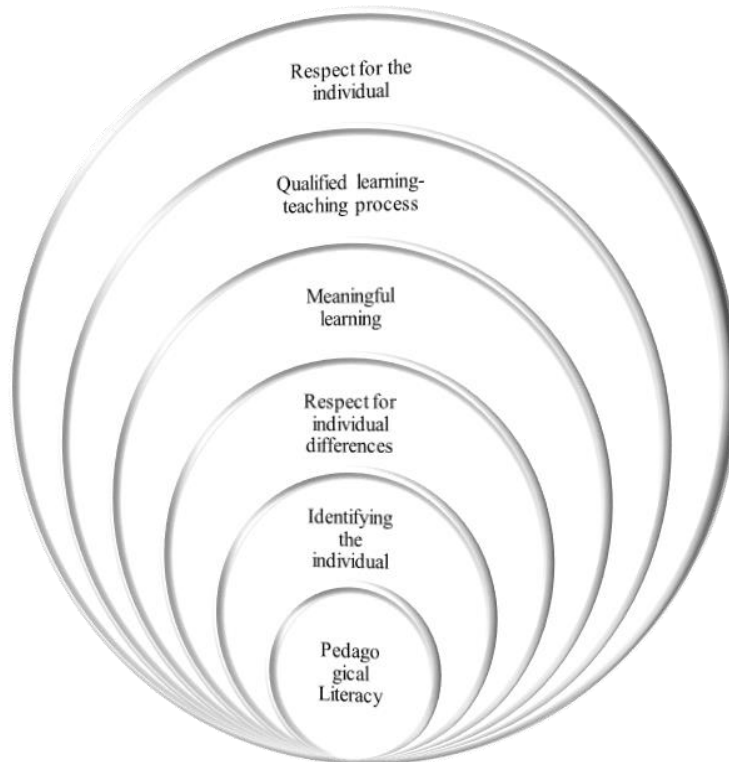


Figure 2. General findings on pedagogical literacy

## **Results and Discussion**

In the research, remarkable findings were reached depending on the document analysis for the study subject. It can be said that these findings stand out as the qualities that pedagogical literacy provides to the learning and teaching process. These attributes are given in Figure 2 above.

Considering the findings given in Figure 2, the reflections of the changes in pedagogical literacy and learning environment in terms of teachers and students have been reached as a result of the document analysis. It can be said that these results are remarkable in terms of better understanding the importance of pedagogical literacy in the education-teaching process.

Another important finding obtained in the study is the qualifications that literacy provides to teachers. These attributes are given in figure 3. Considering these qualities, it can be said that teachers with good pedagogical literacy levels are perceived as a more respected variable by the students in the learning environment.

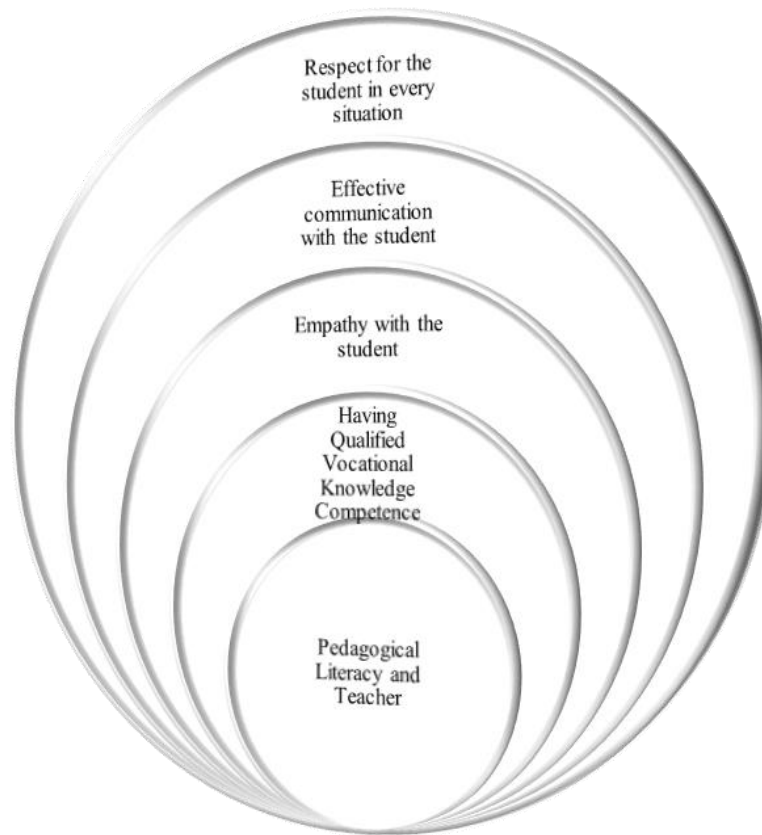


Figure 3. Qualities that pedagogical literacy adds to teachers

## **Conclusion**

In the study, remarkable results were obtained regarding the subject of the study. These results revealed that this type of literacy should be considered as a very important determining factor in today's education world. For this reason, it has been determined that it is necessary to give more place to pedagogical literacy competencies in teacher education. In the study;

- ✓ Pedagogical literacy positively affects the competence of teacher professional knowledge,
- ✓ This literacy affects the learning-teaching process positively in terms of meaningful learning,
- ✓ Teachers who have these literacy competencies value each individual in the learning environment and behave equally to them,
- ✓ It has been concluded that pedagogical literacy is an important skill to be considered in contemporary educational environments.

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## Author Information

---

### Erol KOCOGLU

Inonu University, Faculty of Education,  
Malatya, Turkey  
Contact e mail: erol.kocoglu@inonu.edu.tr

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## **Investigation of Anxiety and Expectations of Physical Education Teacher Candidates on the Teaching Profession**

**Fikret ALINCAK**  
Gaziantep University

**Fatma YILDIZ**  
Bilim Middle School

**Abstract:** One of the most important elements of the education system is teachers. The teaching profession is considered as one of the most important professions for the development and progress of a country. Therefore, the attitudes and perspectives of prospective teachers towards the teaching profession are very important. The aim of this study is to reveal the anxiety and expectations of prospective physical education teachers about the teaching profession. Open-ended questions developed by the researcher as a data collection tool were applied to the candidates of physical education teachers. In the research, the data obtained from 20 physical education teacher candidates studying in physical education and sports education by using the interview method, which is one of the qualitative research methods, were analyzed with the content analysis method. As a result, when we look at the anxieties of the physical education teacher candidates, it is seen that they are in general anxiety of not being appointed and that they are in economic anxiety. In addition, prospective teachers participating in the research, regarding their expectations from the teaching profession; It is concluded that they want to be a good teacher in their profession, to prepare a good future for their students, and to contribute to the society where they are located and to lead their development.

**Keywords:** physical education, prospective teacher, anxiety, expectation

### **Introduction**

One of the most basic functions of the teacher is to guide students and to make them gain behavior change by making them active. From this point of view, it is necessary to train the teacher in a versatile and qualified manner that can meet the requirements of the age. The ability of the teacher to fulfill this basic function depends on providing the theoretical knowledge and application integrity that he should gain in his pre-service education (Özkan, Albayrak and Berber, 2005). Teacher qualifications are one of the important elements that affect the efficiency of the education system. As a professional staff, it is foreseen that the teacher should have a knowledge that covers three dimensions in the pre-service training program. These dimensions are; It consists of field knowledge, general culture and teaching profession knowledge (Rıza and Hamurcu, 2000). The teacher is the most important and indispensable building block of the education system. (Abazaoğlu, Yıldırım and Yıldızhan, 2014; Tekerek and Polat, 2011). Teaching is a fast-paced profession that requires a lot of effort and dedication, and teachers are responsible for managing and controlling events by thinking quickly and rationally in fast and sudden events or possible events (Ceyhan, 2014). Individuals in a society have to keep up with current developments by changing and renewing themselves, depending on scientific and technological changes. Therefore, it is necessary to use free time a little more effectively and efficiently. (Tucker, 2001). This study was prepared to determine the anxiety and expectations of physical education teacher candidates about the teaching profession. For this purpose, answers to the following questions were sought.

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Physical education teacher candidates;

1. What are their general thoughts about the teaching profession?
2. What are their concerns about the teaching profession?
3. What are their expectations from the teaching profession?

## **Method**

Interview method, which is one of the qualitative research methods, was used in the research. Qualitative research is a method that offers flexible action to the researcher compared to quantitative research, and offers different approaches to data collection method, analysis and research design (Gay, Mills and Airasian, 2006). Qualitative research is defined as research in which qualitative data collection methods such as observation, interview and document analysis are used, and a qualitative process is followed to reveal perceptions and events in a natural environment in a realistic and holistic way. Qualitative research is an approach that focuses on researching and understanding social phenomena in their environment with an understanding based on theory building (Yıldırım & Şimşek, 2013).

## **Research Group**

An open-ended question form, which was prepared to examine the anxiety and expectations of physical education teacher candidates towards the teaching profession, was applied to 20 physical education teacher candidates studying at Gaziantep University Faculty of Sport Sciences. The data about the research group are given in Table 1.

Table 1. Personal characteristics of the research group (N = 20)

Variables	Groups	n	%
Class	1	5	32
	2	5	28
	3	5	24
	4	5	16
Gender	Male	14	70
	Woman	6	30

When we look at the classroom of the prospective teachers participating in the research, it is seen that 5 (25%) 1st grade, 5 (25%) 2nd grade, 5 (25%) 3rd grade, 4 (25%) 4th grade teacher candidates. When we look at the gender, it is seen that 14 (70%) pre-service teachers are male and 6 (30%) pre-service teachers are female.

## **Preparation and Application of the Open-Ended Questionnaire**

In the study, a semi-structured interview form consisting of 3 items was used to collect qualitative data. Through the interview technique, which is frequently used in qualitative research, the researcher tries to understand unobservable situations such as attitudes, experiences, intentions, thoughts, mental perceptions, comments and reactions (Yıldırım and Şimşek, 2013). In order to prepare the interview form, a comprehensive literature review was conducted and the interview form was prepared. Then, the questions created by three experts were examined and the semi-structured interview form was finalized. In the research, 20 volunteer physical education teacher candidates studying at Gaziantep University Faculty of Sport Sciences were interviewed using a semi-structured interview form. The interviews were recorded with a voice recorder and then these recordings were transcribed.

## **Analysis of Data**

The data obtained from the interview form used in the research were analyzed with the content analysis method used in qualitative research. In qualitative research, content analysis is used to analyze theoretically unclear themes and, if any, sub-themes (Yıldırım and Şimşek, 2013). The obtained data were recorded separately, grouped and coded. These groupings and codings were presented to the experts in the field, their final form was given according to the evaluations of the experts and prepared for analysis. With the content analysis, themes

were determined for each question and the frequencies and percentages of the given themes were calculated and tables were created. Descriptive analysis was used to evaluate the data. Finally, a report was made and the findings were presented.

## Findings and Interpretation

In this section, the findings obtained as a result of the interviews conducted in order to determine the concerns and expectations of the physical education teacher candidates participating in the research about the teaching profession are included.

Table 2. Distribution of the opinions of the research group about the teaching profession in general.

Themes	n	%
It's a holy profession	17	16.6
It is a respected profession	16	15.6
It is a profession to be valued.	16	15.6
It is a profession that shapes society.	15	14.5
It is a profession that gives pleasure and happiness.	15	14.5
It is a peaceful profession.	13	12.6
It is a demanding profession	11	10.6
Total	103	100

In Table 2, the distribution of the opinions of the research group about the teaching profession in general is given. When the general thoughts of the participants about the teaching profession were examined, 7 themes emerged. It was observed that the participants expressed more than one theme. According to the percentage order among these themes; it is a sacred profession (16.6%), a respected profession (15.6%), a profession that should be valued (15.6%), a profession that directs the society (14.5%), a profession that gives pleasure and happiness (14.5%), a profession that gives peace It was seen that the themes of profession (12.6%) and a profession requiring labor (10.6%) came to the fore.

Table 3. Distribution of the research group's views on their concerns about the teaching profession

Themes	n	%
Anxiety about not being appointed	18	50
Economic anxiety	16	44.4
I don't have any worries	2	5.6
Total	36	100

Table 3 shows the distribution of the opinions of the research group about their concerns about the teaching profession. Three themes emerged in the distribution of the participants' views on their concerns about the teaching profession. According to this; 18 pre-service teachers (70%) stated that they could not be appointed, 16 pre-service teachers (44.4%) stated that they had economic anxiety and 2 pre-service teachers (5.6%) stated that they did not have any concerns.

Table 4. Distribution of the opinions of the research group regarding their expectations from the teaching profession.

Themes	N	%
Being a good teacher in my field	20	24.1
To be a teacher who guides the society	17	20.5
To develop myself personally	16	19.3
Being helpful to students	16	19.3
It should be a profession that does not worry about assignment	14	16.8
Total	83	100

Table 4 gives the distribution of the opinions of the research group regarding their expectations from the teaching profession. Five themes emerged from the participants' views on their expectations from the teaching profession. It was observed that the participants expressed more than one theme. Among these themes, according to the order of percentage, being a good teacher in my field (24.1%), being a teacher who guides the society (20.5%), being able to develop myself personally (19.3%), being useful to students (19.3%), being a profession without worry of assignment. It was seen that the themes should come to the fore (16.8%).

## **Discussion**

In this part of the research, the results obtained as a result of the interviews with the physical education teacher candidates regarding their concerns and expectations for the teaching profession are included. When we look at the opinions of the research group about the teaching profession in general, it is stated that the teaching profession is a sacred and respected profession. In addition, the research group teaching profession; It is stated that it is a profession that should be valued, a profession that gives direction to the society, a profession that gives pleasure and happiness, a profession that gives peace, a profession that requires effort. In different studies, the results that the teaching profession is a sacred profession are in line with our study (Acun, Alıncak and Üzüm, 2017; Ubuz and Sarı, 2009;). In addition, Cinpolat, Alıncak, and Abakay (2016) and Abakay, Alıncak, and Demir (2016) concluded in their studies that students exhibit positive attitudes towards the teaching profession. In their study on prospective teachers, Üzüm and Alıncak (2019) achieved positive results in their preference for the teaching profession and teaching profession.

When we look at the concerns of the research group towards the teaching profession, it was concluded that 18 pre-service teachers did not have any anxiety about being appointed, 16 pre-service teachers had no economic anxiety and 2 pre-service teachers did not have any anxiety. In different studies, it has been stated that the professional expectations of the students are low and the reason for this is the anxiety of not being able to find a job (Acun et al. 2017). In addition, in the study conducted by Şahin (2011) it was found that teacher candidates reported negative opinions about their professional future.

When we look at the views of the research group regarding their expectations from the teaching profession, all of them stated that they want to be a good teacher in their field. Some teacher candidates are; They stated that they want to be a teacher who guides the society, to improve themselves personally and to be beneficial to the students. 14 pre-service teachers stated that it should be a profession without assignment concerns. Acun et al. (2017) stated in their study that their expectations from the teaching profession should be a profession without assignment concerns, that it should be able to meet my financial needs, and that it should provide a peaceful and orderly life. In the study of Elçiçek (2016), teachers; stated that not being valued, not respected, and not giving enough value to teachers reduce the value of the profession. For this reason, he stated that the teaching profession should be given importance.

## **Conclusion**

As a result, when we look at the anxieties of the physical education teacher candidates, it is seen that they are in general anxiety of not being appointed and that they are in economic anxiety. In addition, prospective teachers participating in the research, regarding their expectations from the teaching profession; It is concluded that they want to be a good teacher in their profession, to prepare a good future for their students, and to contribute to the society where they are located and to lead their development.

## **Recommendations**

We would like to thank the physical education teacher candidates who participated in the study.

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### Author Information

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**Fikret ALINCAK**

Gaziantep University Faculty of Sports Sciences,  
Gaziantep, Turkey

**Fatma YILDIZ**

Bilim Middle School, Gaziantep, Turkey  
Contact e-mail:ffatmayldzzz@gmail.com

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## **Classroom-based and Online-based Evaluation of Students and Comparative Analysis of Their Achievements in both Scenarios**

**Vladimir KUZMANOVIĆ**  
University of Belgrade

**Sanda BALJOŠEVIĆ**  
Elementary School “Ujedinjene nacije”

**Abstract:** The COVID19 pandemic made a significant impact on every aspect of everyday life. Educational systems around the world applied different strategies in fighting the limitations imposed by their governments. Some countries opted to continue normal schooling while applying all epidemic measures, some opted for online schooling, some to tele-schooling and others applied combined regime of schooling. The educational system in the Republic of Serbia in the school year 2020/2021 was organized as a combination of standard classroom-based teaching with all epidemic measures and television-based distance teaching-learning. After the epidemic situation worsened, all schools shifted to online-based distance teaching-learning. In this paper we will explain the student evaluation process in both the combined regime of schooling and in the online distance teaching of mathematics in elementary school “Ujedinjene nacije” in Belgrade, Serbia. Also, we will introduce the mathematics teaching methodology and evaluation methodology applied in both cases. After that, we will compare the student achievements in both classroom-based and online-based evaluation and discuss problems we encountered during the evaluation in both scenarios. Finally, we will draw conclusions on evaluation methodology and obtained results and propose possible solutions to the problems we were faced with.

**Keywords:** mathematics teaching methodology, student evaluation, distance teaching-learning

### **Introduction**

The outbreak of the new corona virus in Wuhan, China in December 2019 became a world pandemic in just a few months (Mackenzie et al., 2020). The pandemic caused serious changes in every day life and affected economies all around the world. In an effort to combat the pandemic countries opted for isolation, quarantine or even curfews. Limiting social contacts and the number of people in enclosed spaces has severely affected educational systems worldwide (Li et al., 2020; Jackson et al., 2014). Some countries continued with normal classroom-based schooling while applying epidemic measures, some changed to online-based schooling, some opted for tele-schooling and others applied a combination of all these models depending on the epidemic situation in each community.

A sudden change in educational model has a severe impact on both teachers and students (Dhawan, 2020). Shifting from classroom-based to online-based teaching process requires a completely different set of teacher competencies which may not be met in a short period of time. Insufficient pedagogical knowledge, low level of computer literacy and inadequate training of teachers may lead to a lower quality of education offered to students in an online scenario compared to standard classroom based teaching (Kim et al., 2006). Inadequate online teaching methodology and low quality learning materials may lead to online classes with low student-teacher interaction. Consequently, this leads to low levels of student achievements, lower student self confidence and self esteem as well as lower levels of motivation. Low teacher-student interaction increases the

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feeling of isolation among students and limits the teachers' awareness of the problems students face when learning their course. Combined educational models are especially affected as they are constantly shifting from classroom-based to online-based distance teaching-learning based on the epidemic status in the country.

Evaluation process is also severely affected in the combined educational model because not all courses are evaluated the same. The evaluation process of courses that require some form of practical assignments is almost impossible in an online scenario. One strategy is to evaluate students only when they are at schools, but this may pose a problem if the epidemic situation worsens and online teaching model continues for a long time. Online evaluation requires a high level of computer literacy of both teachers and students and usually a dedicated software or at least a learning management system software which schools may not possess.

An effective mathematics teaching methodology in a combined scenario is presented in (Kuzmanović et al., 2021). Author in (Ruth Evangelin, 2020) explores the effect the online learning had on students during the COVID19 pandemic. Students' perspective on transitioning from classroom-based to online-based education during COVID19 pandemic is presented in (Alsoud et al., 2021; Jin et al., 2021). Author in (Kuzmanović, 2021) presents online teaching methodology, the effects online teaching-learning had on students' achievements as well as a comparative analysis of student achievements before and after switching to online education. Comparison of grades achieved by students in online and classroom based courses was performed by authors in (Sapp et al., 2005).

In this paper we will present mathematics evaluation methodologies for a classroom based and an online based educational model. Chapter 2 of the paper introduces the educational model applied by the Ministry of Education, Science and Technological Development of Republic of Serbia in the academic year 2020/2021. Also, we will introduce the mathematics teaching methodology and evaluation methodology applied in both cases. Next, we will analyze student achievements in both classroom-based and online-based evaluation. Finally, we will make a conclusion on the applied evaluation methodologies and propose solutions to the problems we faced.

## **Education and Evaluation Process**

The Ministry of Education, Science and Technological Development of Republic of Serbia opted for the combined model of education in elementary and secondary schools for the school year 2020/2021. The combined model comprised of the following:

- Each class was divided into two groups.
- Each group was subjected to a combination of traditional classroom based schooling and distance schooling.
- The groups would alternate between classroom based schooling and distance schooling daily.
- Optionally, if the epidemic situation worsened, the educational system would transfer to a completely online distance teaching-learning model.

The school year started with the combined model and a form of distance learning that was applied is tele-schooling. The national broadcasting company was used to broadcast classes to students around the country. The teachers had to strictly follow the defined plan of actions so that the students at school and those at home watching television lessons would follow the same materials. This proved to be a big challenge due to lack of feedback from students following TV lessons at home.

The combined model led to a much harder evaluation process. The teachers were advised to perform all assessments when the students were at school which leads to lengthened evaluation process and doubles the number of classes used for assessment. Also, alternating daily between classroom-based and distance learning allowed the students to easily calculate and evade tests, which further lengthened the process.

As predicted, the epidemic situation worsened and the educational system had to shift to a completely online distance learning model mid-term. In this model, the teachers had to conduct live online classes according to a predefined school timetable to the entire class. This model requires high levels of computer literacy from both teachers and students, modern equipment and high speed broadband internet connection. Evaluation of students in this model is also much harder, particularly for courses that require practical exercises.

Teaching mathematics in a combined scenario is a challenging task. For students to properly develop logical thinking and problem solving skills it is critical for them to have a high level of interaction with their teacher. In distance learning based on tele-schooling it is impossible to develop necessary levels of interaction with the students. In order to overcome this problem, the approach suggested by authors in (Kuzmanović et al., 2021) was fully implemented. The students at school were given lectures in the classroom, while students at home had to follow the same lecture recorded and rendered in advance with the help of a pen tablet, digital whiteboard and video processing software. This caused the students to develop a very high level of interaction with their teacher as well as not feel isolated when following lectures at home.

Evaluating students' levels of achievements is much easier in a combined scenario than in a completely online distance teaching-learning education model. The group of students in school will be called group A and the group of students at home will be called group B. In a combined scenario, the group A was given a set of mathematics problems to solve. Each student in group A had to solve the problems step by step on a piece of paper. Their work was later evaluated and graded. Group B students had to solve the same set of problems for self-evaluation. The next, the groups would alternate, so the group B students would do the real test at school, which was later evaluated and group A students would do the test for self-evaluation. The test for groups A and B had to be different, but comparably easy or hard. Each test comprised of five tasks to be solved. Two tasks were elementary level, two tasks were intermediate level and one task was advanced level of accomplishment.

In an online scenario evaluating students in such a manner is impossible. Using online quizzes is also impossible due to math problems rarely being a short answer type of question. Besides the correct answer, the entire algorithmic work to reach the correct answer is also important and has to be checked during evaluation. The evaluation procedure in an online scenario was organized in a manner similar to the evaluation process at school. The students were given a set of five problems to solve at home and were asked to photograph/scan their work and send it to the teacher in a predefined time frame. In order to avoid unfair academic behavior the students were required to keep their cameras turned on and be online the entire time during the test.

Both evaluation procedures presented above were performed in a mathematics course in the 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> grade in elementary school "Ujedinjene nacije" in Belgrade, Republic of Serbia. A total of 4 written test were given to students during the school year. Two of those test were at schools and two tests were given to students online. A comparison of students' achievements will be performed in the next chapter.

## Results and Discussion

The evaluation methodologies presented above were performed in a mathematics course in the 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> grade in elementary school "Ujedinjene nacije" in Belgrade, Republic of Serbia. Two written tests were given to children in the classroom and two written test were given to children during online distance teaching-learning. In each semester the children had one written test in school and one written test online. The achievements of 30 children from the 5<sup>th</sup> grade, 29 children from the 6<sup>th</sup> grade and 28 children from the 7<sup>th</sup> grade in both scenarios will be analyzed. In the Serbian educational system student grades are integers in range 1 to 5, with 5 being the highest grade and 1 being the lowest grade. Figure 1 shows the average score the students achieved across the tests.

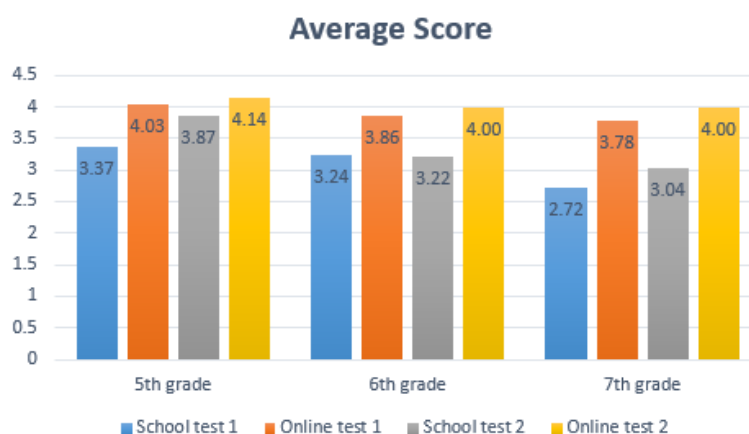


Figure 1. Average score in tests.

Figure 1 clearly shows a significantly higher average grade in online evaluation compared to standard classroom based evaluation across all classes. The difference between average grades is the lowest in the 5th grade and the highest in 7th grade. This can be attributed to the course of mathematics being easier in the fifth grade than in the seventh grade. Also, younger students are less likely to cheat or display any other form of unfair academic behaviour. Figure 2 shows the distribution of the grades across the tests in every class.

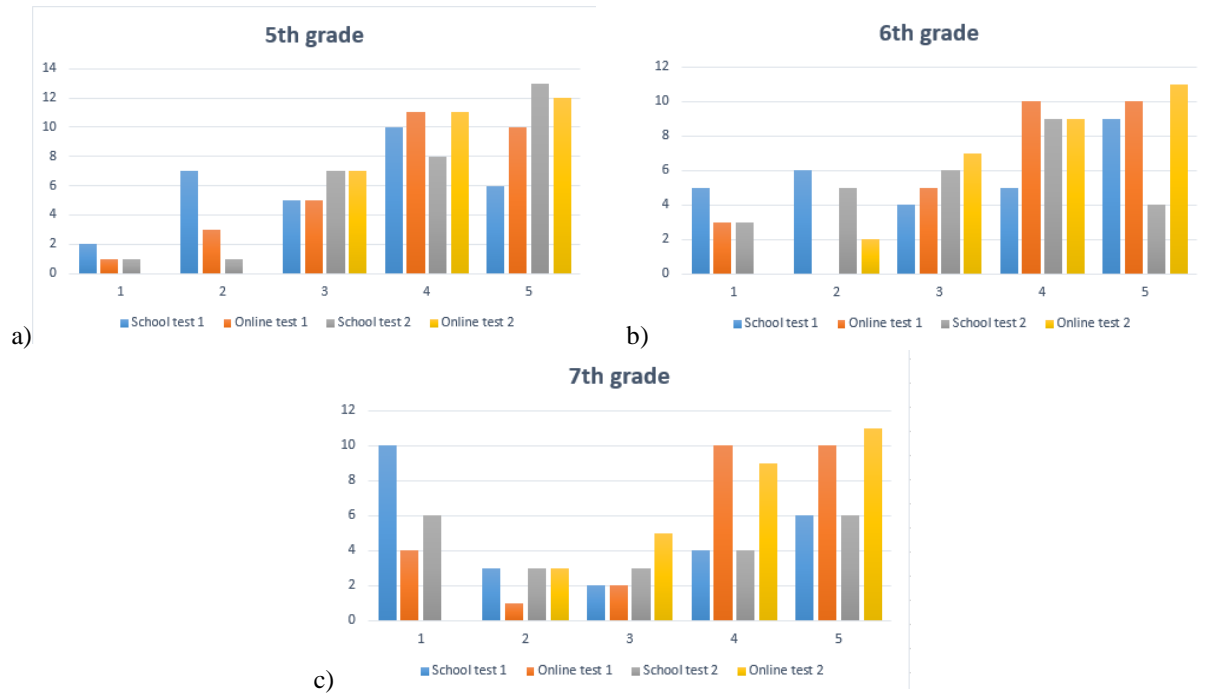


Figure 2. Distribution of grades: a) 5th grade b) 6th grade c) 7th grade.

Figure 2 shows that the distribution of grades has changed significantly in online testing. Regular classroom based evaluation procedures follow uniform distribution, while online tests are left skewed, thus favoring higher grades. This may be caused by the students feeling more relaxed at home and being exposed to lower peer pressure, thus achieving more. Also, it may be attributed to unfair academic behaviour because the teacher does not have any insight whether the student has any help from behind the camera or if the student has learning materials behind the camera. Teachers inability to fully assess and assure equal exam taking conditions for every student leads to the online test results being valued less in the final grade.

## Conclusion

In this paper we present evaluation methodologies for assessing students' achievements in both combined and online teaching models. The presented methodologies were applied in a mathematics course in elementary school "Ujedinjene nacije" in Belgrade, Republic of Serbia. A total of 87 students from 5<sup>th</sup>, 6<sup>th</sup> and 7<sup>th</sup> grades were evaluated by the presented metrics. The results of evaluation showed that the students got significantly better grades during online evaluation. Also, the distribution of the grades was changed. In the classroom based evaluation the distribution was uniform, while in online evaluation the distribution was left skewed, thus favoring higher grades. This raises a question on the objectivity of student evaluation results in an online scenario and motivates further research on designing evaluation methods suitable for online distance learning. Using the presented methodologies it is advisable to value the results obtained in classroom based evaluation more than the results obtained in the online evaluation. Online evaluation should be valued lower due to inability of the teacher to make sure that the student did not cheat, thus making the online grade not an impartial numerical measure of students' achievements.

## Scientific Ethics Declaration

The authors declare that the scientific ethical and legal responsibility of this article published in EPSS journal belongs to the authors.

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### **Author Information**

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#### **Vladimir KUZMANOVIĆ**

Faculty of Mathematics, University of Belgrade  
Studentski Trg 16, 11000 Belgrade, Serbia  
Contact e-mail: [vladimir\\_kuzmanovic@matf.bg.ac.rs](mailto:vladimir_kuzmanovic@matf.bg.ac.rs)

#### **Sanda BALJOŠEVIĆ**

Elementary School “Ujedinjene nacije”  
Borova 8, 11000 Belgrade, Serbia

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## **Adequacy of the Social Studies Curriculum in terms of Cultural Literacy Skills**

**Sule EGUZ**  
Inonu University

**Abstract:** Being culturally literate means being prone and competent to be sensitive to one's own and others' identities, heritages, and cultures. It is very important for students to learn about other cultures and races in order to avoid unnecessary prejudices. In this sense, cultural literacy is a powerful educational tool used to adopt one's own culture and to develop understanding and respect for different cultures and people. Indeed, cultural literacy can be a window for other students to experience new ways of seeing the world as a rich and complex place. This study aims to reveal the adequacy of the Social Studies Curriculum updated in 2017 in terms of cultural literacy skills. The data of the research, which was carried out by adopting a qualitative research approach, were obtained through document analysis. The data obtained from the research were analyzed in accordance with the document review stages. In this context, seven learning areas within the Social Studies Curriculum were examined in detail.

**Keywords:** Social studies, Curriculum, Cultural literacy

### **Introduction**

Subdivide Culture is often described as an iceberg. Above the water, there are aspects of culture that you can easily see and experience: such as language, clothes, food, festivals. Under the water, in places where we cannot see it, there are aspects that those who live the culture know and understand most of the time without thinking or questioning (Hirsch, 1983). Thus, culture is not just a set of beliefs and values that make up our normal, everyday worldview; it also includes our standard daily behavior patterns (Heller, 1987). Cultural literacy, on the other hand, is the information network that all readers have. However, cultural literacy can mean the ability to understand and interpret the characteristics of a culture in terms of social organization, legal systems, religious beliefs, and related topics that social science focuses on (Broudy, 1990; Hirsch, Kett & Trefil, 1987). The aim of cultural literacy is to equip students and professionals with the ability to read and understand constantly evolving cultural and disciplinary contexts so that they can adapt to cultures in such a way that their specific education can be applied as effortlessly and efficiently as possible (Ochoa, McDonald & Monk, 2016). In this context, Anning (2010) summarizes the basic competencies that one should develop to be culturally literate:

- Appreciating and understanding cultural diversity,
- Effective communication with people from other cultures,
- Treating everyone without prejudices or stereotypes,
- Evaluating each situation and adjusting one's behavior.

The balance of skills and factual information is important for cultural literacy. Teaching skills in context and combining critical thinking with content is particularly important in education. Being literate about culture, however, requires more than knowledge and skills in the humanities and other sciences: It requires the ability to critically evaluate popular culture. Because gaining knowledge about how to behave in a cultural setting

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involves learning a complex set of values and beliefs (Riecken & Court, 1992). Rosen (2000) stated that with cultural literacy, differences can be grasped and benefited from, which can enable a person to fulfill the following key roles:

- Values one's cultural heritage, shortcomings, and strengths,
- An investigative internationalist who looks beyond his own culture for job opportunities,
- A respectful modernist who best preserves his culture and uses the knowledge and resources of others,
- Cultural bridge building cross-cultural alliances and coalitions,
- It is the global capitalist who brings global resources to local problems and local resources to global opportunities.

There is general agreement that living and working in culturally diverse environments offers educators and institutions at all levels the essential task of promoting and developing cultural literacy (Shliakhovchuk, 2021). The main principles underlying the recommendations for using cultural literacy, which is accepted as a way to achieve excellence in education, can best be summarized as follows: Cultural literacy (Hirsch, 1985, 1987);

- It should be an essential component of the entire school curriculum,
- It is necessary to achieve general literacy,
- It should start in the primary school grades at the earliest,
- It is necessary for all children, regardless of socio-economic status, ethnicity, or type of school,
- It is a path to academic success and therefore will break the cycle of poverty and benefit at-risk illiterate students.

Social studies are an important primary education course that examines people and their interaction with their environment in terms of time and place (Doğanay, 2008). The main purpose of Social Studies is to assist young people to develop the ability to make informed, rational decisions for the public good as citizens of a culturally diverse democratic society in an interdependent, global world (NCSS, 1993). In Turkey, the 2017 Social Studies Curriculum includes cultural issues as in previous programs. The aim of this research is to reveal the adequacy of the Social Studies Curriculum updated in 2017 in terms of cultural literacy skills. In line with this general purpose, answers to the following questions were sought:

1. What is the adequacy of the 4th Grade Social Studies Program in terms of cultural literacy skills?
2. What is the adequacy of the 5th Grade Social Studies Program in terms of cultural literacy skills?
3. What is the adequacy of the 6th Grade Social Studies Program in terms of cultural literacy skills?
4. What is the adequacy of the 7th Grade Social Studies Program in terms of cultural literacy skills?

## **Method**

The research is a descriptive study in the screening model based on the qualitative research approach. In this study, document analysis, one of the qualitative data collection tools, was used. Document analysis includes the analysis of written materials containing information about the facts and events that are aimed to be investigated (Yıldırım & Şimşek, 2016). The main source of the research data is the 2017 Social Studies Curriculum on the website of the Ministry of National Education Board of Education and Discipline. The data were subjected to document analysis. The analysis was carried out in five stages. These are: Accessing documents, checking originality, understanding documents, analyzing data, and finally using data.

## **Findings**

In this section, it is examined how much the Social Studies Curriculum touches on cultural literacy skills and the results are presented through tables.

### **Cultural Literacy in Social Studies 4th Grade Program**

The data on the cultural literacy skills of the 4th grade Social Studies program are given in Table 1. As seen in Table 1, subjects and achievements covering cultural literacy in the learning areas of Individual and Society,

Culture and Heritage, Science, Technology and Society and Global Connections are included in the 4th Grade Social Studies Program. There are 33 outcomes in total in the 4th grade Social Studies program. The program includes content that will directly improve cultural literacy skills in 6 outcomes. This content was given more place in the learning areas of Culture and Heritage and Global Connections.

Table 1. Cultural literacy skills in Social Studies 4th grade program (MEB, 2018)

4th Grade Social Studies Program		
Learning Space	Topic	Program Outcomes
Individual and Society	I am aware, I respect differences	SB.4.1.5. Respects the different characteristics of other individuals.
Culture and Heritage	1. Our National Cultural Elements	SB.4.2.2. Gives examples by researching the elements reflecting the national culture in and around his family.
	2. Kids Games from Past to Present	SB.4.2.3. Compares traditional children's games with today's games in terms of change and continuity.
Science, Technology and Society	Technology from the Past to the Present	SB.4.4.2. Compares the past and present uses of technological products.
Global Connections	1. Different cultures	SB.4.7.3. Compares the cultural elements of different countries with the cultural elements of our country.
	2. The World is Beautiful with Differences	SB.4.7.4. Respects different cultures.

### **Cultural Literacy in Social Studies 5th Grade Program**

Data on cultural literacy skills in the Social Studies 5th grade program are given in Table 2. As can be seen in Table 2, subjects and achievements related to cultural literacy skills are included in the learning areas of Culture and Heritage, Production, Distribution, Consumption and Global Connections in the 5th Grade Social Studies Program. There are 33 gains in total in the 5th grade Social Studies program. In the program, on the other hand, there are contents that will directly improve cultural literacy skills in 9 outcomes. In the outcomes in the field of Culture and Heritage learning, this content was given more space than the specified learning areas.

Table 2. Cultural literacy skills in Social Studies 5th grade program (MEB, 2018)

5th Grade Social Studies Program		
Learning Space	Topic	Program Outcomes
Culture and Heritage		SB.5.2.1. Realizes the important contributions of Anatolian and Mesopotamian civilizations to the history of humanity based on their concrete remains.
	1. We Know Civilizations	SB.5.2.2. It introduces the natural assets and historical places, objects and artifacts around.
	2. Beauties of Our Country	SB.5.2.3. By comparing the cultural characteristics of various parts of our country with the cultural characteristics of the environment in which he lives, he determines the similar and different elements between them.
	3. Our Rich Culture	SB.5.2.4. Analyzes the role of cultural elements in the coexistence of people.
	4. Our Shared Values	SB.5.2.5. Evaluates the historical development of cultural elements in daily life.
	5. Our Culture from Past to Present	SB.5.5.3. Analyzes the effect of economic activities in the environment on people's social lives.
Production, Distribution, Consumption	Economic Activities and Social Life	SB.5.7.1. Researches the role of the place where he lives and his environment in the economic relations between our country and other countries.
Global Connections	1. Our Contribution to the Economy	SB.5.7.3. Explain the importance of tourism in international relations.
	2. Journey to Peace	SB.5.7.4. Gives examples of common heritage items found in various countries.
	3. A Gift from the Past to the Future: Common Heritage	



### **Cultural Literacy in Social Studies 6th Grade Program**

Data on cultural literacy skills in the 6th grade Social Studies program are given in Table 3. As seen in Table 3, subjects and achievements related to cultural literacy are included in the Learning areas of Individual and Society, Culture and Heritage and Global Connections in the 6th Grade Social Studies Program. There are 34 outcomes in total in the 6th grade Social Studies program. In the program, on the other hand, there are contents that will directly improve cultural literacy skills in 9 outcomes. In the outcomes in the field of Culture and Heritage learning, this content was given more space than the specified learning areas.

Table 3. Cultural literacy skills in Social Studies 6th grade program (MEB, 2018)

6th Grade Social Studies Program		
Learning Space	Topic	Program Outcomes
Individual and Society	1. Culture and Social Cohesion	SB.6.1.2. Analyzes the place and role of social, cultural and historical ties in the formation of social cohesion.
	2. I Respect Diversity	SB.6.1.3. Question the prejudices against differences in order to live in harmony in society.
Culture and Heritage	1. The First Turkish States Established in Central Asia	SB.6.2.1. He makes inferences about the geographical, political, economic and cultural characteristics of the first Turkish states established in Central Asia.
	2. Acceptance of Islam by Turks	SB.6.2.3. He realizes the changes in the political, social and cultural fields with the acceptance of Islam by the Turks.
	3. New Home Anatolia	SB.6.2.4. The process of Turks acquiring Anatolia in the XI. and XIII. analyzes in the context of centuries.
	4. Silk and Spice Road	SB.6.2.5. Explain the role of historical trade routes in political, cultural and economic relations between societies.
Global Connections	1. Relations with Turkic Republics and Neighboring Countries	SB.6.7.1. Analyzes the cultural, social, political and economic relations of our country with the Turkic Republics and neighboring states.
	2. International Roles Assumed by Our Country	SB.6.7.3. Analyzes the roles our country has assumed in the international arena depending on its political, military, economic and cultural characteristics.
	3. Popular culture	SB.6.7.4. Question the effects of popular culture on our culture.

### **Cultural Literacy in Social Studies 7th Grade Program**

Table 4 shows the data regarding the adequacy of cultural literacy skills in the 7th grade Social Studies program. As seen in the table, subjects and achievements related to cultural literacy are included in the 7th Grade Social Studies Program in the learning areas of Culture and Heritage and Global Connections. There are 31 outcomes in total in the 7th grade Social Studies program. In the program, on the other hand, there are contents that will directly improve cultural literacy skills in 2 outcomes.

Table 4. Cultural literacy skills in Social Studies 7th grade program (MEB, 2018)

7th Grade Social Studies Program		
Learning Space	Topic	Program Outcomes
Culture and Heritage	I Exist with My Culture	SB.7.2.5. Gives examples of Ottoman culture, art and aesthetics.
	Facts We Know Wrong	SB.7.7.3. Question the stereotypes of various cultures.

### **Conclusion**

When social studies 4th, 5th, 6th and 7th grades are examined, there are 131 outcomes in total. It is seen that a total of 26 acquisitions at the level of all classes are directly related to cultural literacy skills. When evaluated in general, considering that there are seven learning areas in the Social Studies program updated in 2017, it is seen

that five of these (Individual and Society, Culture and Heritage, Science, Technology and Society, Production, Distribution, Consumption, Global Connections) learning areas directly or indirectly try to gain cultural literacy skills. It has been determined that cultural elements are concentrated in the learning areas of "Culture and Heritage" and "Global Connections" within the determined learning areas. Many subjects and concepts that form the basis of cultural literacy skills are included in the program. However, in order to increase students' cultural awareness, it can be suggested that the distribution of cultural elements in other learning areas should be balanced, and these elements should be included in more outcomes.

## **Scientific Ethics Declaration**

The author declares that the scientific ethical and legal responsibility of this article published in EPESS journal belongs to the author.

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## **Author Information**

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### **Sule EGUZ**

Inonu University, Education Faculty, Department of Social Studies Education, Malatya, Turkey

Contact e-mail: [suleeguz@gmail.com](mailto:suleeguz@gmail.com)

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## **Examination of Physical Education Teachers' Opinions on the Qualifications of School Headquarters**

**Hasan DEMIR**

İstanbul Gaziantepçililer High School

**Fikret ALINCAK**

Gaziantep University

**Abstract:** Undoubtedly, it is the educational institutions that make the greatest contribution to the development and development of countries. Teachers, who have a great share in the formation of the process, attach great importance to the quality of the education process. Therefore, teachers take an active role in the progress and development of a country. The aim of this study is to reveal the views of physical education teachers about the competencies of school administrators. Open-ended questions developed by the researcher as a data collection tool in the study were presented to physical education teachers. In the research, using the interview method, which is one of the qualitative research methods, the data obtained from 40 physical education teachers working in schools affiliated to Gaziantep Provincial Directorate of National Education in the 2017-2018 academic year were analyzed by content analysis method. As a result, it has been observed that the majority of physical education teachers see school administrators as sufficient. In addition, it is stated that school administrators should develop themselves academically, have a good command of the legislation and be professionally competent, at the same time; It was concluded that he should have communication skills and be fair.

**Keywords:** Teacher, Competence, Manager

### **Introduction**

Competence can be defined as having the knowledge and skills required to perform a behavior (Basaran, 2000; Töremen & Kolay, 2003). Accordingly, competence is the presence of features that give a person the power to play a certain role or the absence of features that prevent him from playing this role, and in a word, it consists of all fields (Bursalioğlu, 1981). It is emphasized in the studies on school administration that school administration should be a professional profession, as in many professions (Yılmaz, 2009; Korkmaz, 2005; Çelik, 2002). The Ministry of National Education states that the main profession in education institutions is teaching, but does not see school management as a professional profession. Considering education as a system; teachers, students, administrators, supervisors, parents and the environment constitute the parts of the system that affect and are affected by each other (Cebeci Emre & Ünsal, 2017). The school administrator is the person who organizes, directs, supervises and guides the employees within the framework of a plan for the fulfillment of the objectives of national education (Gürsel, 2006).

School administrators are very important for the effectiveness and efficiency of the school. Because school administrators plan the future of the school with the knowledge and skills they have, determine its direction and direct the change efforts in the school (Garies and Tschannen-Moran, 2008). In general, it is important to create a common mind between teachers and administrators in order to increase effectiveness in the education process (Çepni & Küçük, 2003).

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This study was prepared to determine the opinions of physical education teachers about the competencies of school administrators. For this purpose, answers to the following questions were sought.

Physical education teachers (of);

1. What are the opinions of school administrators about their qualifications?
2. What should school administrators do to improve themselves?

## **Method**

The case study design, which is one of the qualitative research methods, was used in the research. Qualitative research is a method that offers flexible action to the researcher compared to quantitative research, and offers different approaches to data collection method, analysis and research design (Gay, et. all, 2006). The answers of the participants were read several times, similar statements were brought together and themes were formed (Wolcott, 1994). A case study is a research design that examines the researched phenomenon in its own life context, is used in cases where the boundaries between the phenomenon and its environment are not clearly defined, and where more than one evidence or data source is available (Yıldırım & Şimşek, 2006).

## **Research Group**

An open-ended question form, which was prepared for physical education teachers to determine the opinions of school administrators on their qualifications, was applied to 40 physical education teachers working in schools affiliated to Gaziantep Provincial Directorate of National Education. The data about the research group are given in Table 1.

Table 1. Personal characteristics of the research group (N = 40)

Variables	Groups	n	%
Gender	Male	24	60
	Woman	16	40
Education status	Licence	34	85
	Graduate	6	15

In Table 1, some personal characteristics of the research group are given. When we look at the gender of the teachers participating in the research, it is seen that 24 (60%) teachers are male and 16 (40%) teachers are female. When we look at the education levels, it is seen that 34 (85%) teachers are undergraduate education graduates and 6 (15%) graduate education graduates.

## **Preparation and Application of the Open-Ended Questionnaire**

In order to create the interview form to be used in the research, first of all, 100 physical education teachers were asked to write a face-to-face composition about the opinions of school administrators about their competencies. As a result of the information obtained from the collected compositions and the relevant literature, the draft form of the interview form was obtained. One of the logical ways used to test the content validity of the measurement tool prepared for the research is to seek the opinion of an expert (Büyüköztürk, 2006). given its final state. The final version of the prepared interview form was applied to 40 physical education teachers working in schools affiliated to Gaziantep Provincial Directorate of National Education, and data were obtained. During the application, the purpose of the research was explained to the participants, and they were informed about the importance of their answers. As a result of the answers given by the participants to the measurement tool, multiple statements were gathered under common themes.

## **Analysis of Data**

The data obtained from the interview form used in the research were analyzed with the content analysis method used in qualitative research. In qualitative research, content analysis is used to analyze theoretically unclear

themes and, if any, sub-themes (Yıldırım & Şimşek, 2006). The obtained data were recorded separately, grouped and coded. These groupings and codings were presented to the experts in the field, their final form was given according to the evaluations of the experts and prepared for analysis. With the content analysis, themes were determined for each question and the frequencies and percentages of the given themes were calculated and tables were created. Descriptive analysis was used to evaluate the data. Finally, a report was made and the findings were presented.

## **Findings and Interpretation**

In this section, the findings obtained as a result of the interviews conducted in order to determine the concerns and expectations of the physical education teacher candidates participating in the research about the teaching profession are included.

Table 2. Distribution of the opinions of the research group about the teaching profession in general.

Themes	n	%
It's a holy profession	17	16.6
It is a respected profession	16	15.6
It is a profession to be valued.	16	15.6
It is a profession that shapes society.	15	14.5
It is a profession that gives pleasure and happiness.	15	14.5
It is a peaceful profession.	13	12.6
It is a demanding profession	11	10.6
Total	103	100

In Table 2, the distribution of the opinions of the research group about the teaching profession in general is given. When the general thoughts of the participants about the teaching profession were examined, 7 themes emerged. It was observed that the participants expressed more than one theme. According to the percentage order among these themes; it is a sacred profession (16.6%), a respected profession (15.6%), a profession that should be valued (15.6%), a profession that directs the society (14.5%), a profession that gives pleasure and happiness (14.5%), a profession that gives peace It was seen that the themes of profession (12.6%) and a profession requiring labor (10.6%) came to the fore.

Table 3. Distribution of the research group's views on their concerns about the teaching profession

Themes	n	%
Anxiety about not being appointed	18	50
Economic anxiety	16	44.4
I don't have any worries	2	5.6
Total	36	100

Table 3 shows the distribution of the opinions of the research group about their concerns about the teaching profession. Three themes emerged in the distribution of the participants' views on their concerns about the teaching profession. According to this; 18 pre-service teachers (70%) stated that they could not be appointed, 16 pre-service teachers (44.4%) stated that they had economic anxiety and 2 pre-service teachers (5.6%) stated that they did not have any concerns.

Table 4. Distribution of the opinions of the research group regarding their expectations from the teaching profession.

Themes	N	%
Being a good teacher in my field	20	24.1
To be a teacher who guides the society	17	20.5
To develop myself personally	16	19.3
Being helpful to students	16	19.3
It should be a profession that does not worry about assignment	14	16.8
Total	83	100

Table 4 gives the distribution of the opinions of the research group regarding their expectations from the teaching profession. Five themes emerged from the participants' views on their expectations from the teaching profession. It was observed that the participants expressed more than one theme. Among these themes, according to the order of percentage, being a good teacher in my field (24.1%), being a teacher who guides the

society (20.5%), being able to develop myself personally (19.3%), being useful to students (19.3%), being a profession without worry of assignment. It was seen that the themes should come to the fore (16.8%).

## **Results and Discussion**

In this part of the research, the results obtained as a result of the interviews with the physical education teachers are included. When we look at the opinions of the research group on the qualifications of school administrators; While most of them state that the school administrators are sufficient, some teachers state that the school administrators are partially sufficient. On the other hand, 4 teachers stated that school administrators are not sufficient. Based on these views, we can say that school administrators are sufficient in general. Dönmez (2002), Yıldırım and Aslan (2008) also determined in their research that school administrators perceive themselves as more competent than inspectors and teachers.

When we look at the opinions of the research group about what school administrators should do to improve themselves, the participants stated that the school administrators; They stated that he should improve himself academically, have a good command of the legislation and be professionally competent. In addition, the research group school administrators; They stated that they should have communication skills and be fair. The opinion of Balyer and Gündüz (2011) that principals should generally come from the teaching profession, receive postgraduate education in their fields, undergo in-service training on management before starting their profession, and have merit, in this research, administrators should know teaching methods and techniques, receive postgraduate education, supports its findings on management knowledge and competence. The principal should be the leader of the school (Demirtaş and Özer, 2013). The competencies of school administrators such as empathy, tolerance, fairness, equality and impartiality are the most striking results of the research regarding humane competencies. A school administrator should be open to communication, patient, fair, have pedagogical and management knowledge, and have teaching experience (Kaymak, Keskinçılıç Kara, 2016; Açıkalın, Şişman, Turan, 2015; Memduhoğlu, 2015).

## **Conclusion**

As a result, it has been observed that the majority of physical education teachers see school administrators as sufficient. In addition, it is stated that school administrators should develop themselves academically, have a good command of the legislation and be professionally competent, at the same time; It was concluded that he should have communication skills and be fair.

## **Recommendations**

We are grateful to the physical education teachers who participated in the research.

## **Acknowledgements or Notes**

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## **Scientific Ethics Declaration**

The authors declare that the scientific ethical and legal responsibility of this article published in EPESS journal belongs to the authors.

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### Author Information

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**Hasan DEMİR**

İstanbul Gaziantepçiler High School, Gaziantep, Turkey  
Contact e-mail: germisli27@hotmail.com

**Fikret ALINCAK**

Gaziantep University Faculty of Sports Sciences, Gaziantep, Turkey

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## **Opinions of Social Studies Teachers on Turkish Education System: Current Problems and Suggested Solutions**

**Ozkan AKMAN**

Suleyman Demirel University

**Merve SAGLAM**

Ministry of Education

**Abstract:** The value given to social sciences in developed societies is increasing day by day. It is a discipline that deals with the individual, social life and events from different perspectives with a scientific approach; It is important for a better understanding of the individual and social events. This work; This study was carried out in order to examine the problems faced by social studies teachers in the social studies lesson and other factors related to the social studies lesson in line with the views of the social studies teachers. In the research, it was aimed to reveal the existing or past problems as they are, therefore, a widely used qualitative design based on consultation was used. This research was conducted with 50 social studies teachers in primary schools in Mardin province, district and village affiliated to the Ministry of National Education. In the research, the data were collected with the semi-structured interview form technique, which is one of the qualitative research methods. The data obtained in this study were analyzed descriptively according to the previously classified guidelines. When the results of this study are examined, it can be seen how the school situation affects the readiness of the student, the high internal motivation of the student, how the child's genetic and mental codes direct the child, the fact that the financial conditions are directly proportional to the education, what kind of environment he grows up in, the textbook is not sufficient for the exam. Whether there is an additional source or not, the direct reflection of friendship relations or the level of class success on the student, the burden of more responsibility than the student can bear, Results have been obtained such that its existing capacity should be supported socially and economically rather than being very intelligent.

**Keywords:** Social Studies, Turkish Education System.

### **Introduction**

The value given to social sciences in developed societies is increasing day by day. It is a discipline that deals with the individual, social life and events from different perspectives with a scientific approach; It is important for a better understanding of the individual and social events. The experiences of social sciences should be transferred to new generations in order to raise healthy individuals who understand the individual and the social structure, can live together. The rapid increase in industrialization and urbanization towards the end of the twentieth century has caused human beings to face different social problems. Since people had to live together, they had to be more qualified. Therefore, it was discussed how to develop a qualified person who can cope with all these changes and problems. As a result of these discussions, the purpose of social studies, which is the task of transferring culture and gaining identity in most countries, and the objectives to be gained were determined. Most developed countries have increased the importance given to the social sciences course and supported projects related to this field. Later studies also included the social studies course; It has been accepted as a branch that raises individuals who are active, creative, and have problem-solving skills and adapt to social life. The biggest factor in making the students understand the qualifications and skills within the scope of social

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sciences is the teacher. It is necessary for the students to be directed in the desired way and the teachers working in this field should have the field knowledge and general culture professional skills. Social studies teachers should be able to plan teaching activities as well as knowing the goals of social sciences and social studies (Demirel, 2004).

This study is important in terms of its contribution to revealing the problems encountered in the constant change of the curriculum, the inadequacy of the course hours, the factors affecting the success of the students, the attitude of the parents towards the course, and the solution proposals to be brought to the problems such as content validity. While developing a training program, a training program is currently being implemented and researches made in solving the problems that arise here have been utilized.

In the research, the answer to the question "What are the current problems in social studies education from the perspective of social studies teachers?" was sought. In this study, which will be done with this study, the problems faced by social studies teachers in the social studies lesson and other factors related to the social studies lesson, the current problems and solutions below were tried to be determined in line with the opinions of the social studies teachers;

1. What are the factors affecting the success of the student?
2. Are you satisfied with the way the topics in the social studies textbooks are handled?
3. What do you think is the role of parent attitude in students' success?

## **Method**

In the research, it was aimed to reveal the existing or past problems as they are, therefore, a widely used qualitative design based on consultation was used. Qualitative method offers the opportunity to evaluate the reactions of people in the face of events and the emotions they feel with a holistic point of view and multidimensionally (Baltacı, 2019, p.368). The case study design, one of the qualitative research approaches, was used in the research.

### *Study Group of the Research*

This research was conducted with 50 social studies teachers working in primary schools located in the center and rural areas of Mardin province, district and village, which are affiliated to the Ministry of National Education in Mardin.

### *Data Collection Tool of the Research*

In the study, data were collected with a semi-structured interview form. Interviews were conducted with a semi-structured interview form developed by the researcher. While preparing the semi-structured interview form, the opinions of 3 experts (two social studies education experts, Turkish education experts) were used.

### *Analysis of Data*

The data obtained in this study were analyzed descriptively according to the previously classified guidelines. In the entire data analysis process, the researcher got rid of his previous feelings and thoughts towards social studies teachers and placed himself in parentheses. After reading the data obtained from 50 interviewees many times, coding was done. While coding, the concepts used by the teachers were handled in the form of live codes, and descriptive codes were created that can best express the situation in cases where it is not considered sufficient. The categories were reached from the coding, these categories were presented in tables and presented thematically.

## **Results and Discussion**

### **Views on Factors Affecting Student Success**

According to the data in Table 1 below, the opinions of the participants on the question of what are the factors affecting student achievement are given. It is seen that the participant views are united in 3 different themes: student-based, family-based and school-based.

Table 1. Opinions on the factors affecting student achievement

<i>Student Based</i>	%
Student readiness affects student success	18
Student motivation affects student success	12
The genetic status of the student affects the success of the student.	10
The mental state of the student affects the student's success.	6
Awareness/consciousness of the student affects the success of the student.	6
The environmental conditions of the student affect the success.	36
The student's access to technological materials affects success.	14
The circle of friends of the student plays an effective role on the success of the student.	12
<i>Family Based</i>	
Family influences student success	32
Parental attention is effective on student success.	26
The importance given by the family to education affects the success of the student.	26
Home environment affects student success	20
The education level of the family affects the success of the student.	18
The cooperation of the family with the school staff is effective in the success of the student.	10
Parental pressure has an impact on student success.	10
Socio-economic conditions are effective on student success.	18
Student nutrition affects student success	6
Financial conditions affect student success.	4
Spiritual conditions affect student success	4
<i>School Based</i>	
School staff have an impact on student success.	32
The physical conditions of the school affect the success of the student.	26
Smart board is effective on student success	20

According to the data in Table 1, the student's readiness affects the student's success 18%, the student's motivation affects the student's success 12%, the student's genetic condition affects the student's success 10%, the student's mental state affects the student's success 6%, the student's awareness/consciousness affects the student's success 6% , external factors 2%, the environmental conditions of the student affect the success 36%, the student's access to the materials affects the success 14%, the student's friend circle plays an effective role on the student's success 12%, the family affects the student's success 32%, parental interest affects the student's success It is effective 26%, the importance the family attaches to education and training is effective on the success of the student 26%, the home environment affects the success of the student 20%, the education level of the family affects the success of the student 18%, the cooperation of the family with the school staff is effective on the success of the student 10%, parental pressure is effective on the success of the student 10%, socio-additional Onomic conditions affect the success of the student 18%, the nutrition of the student affects the success of the student 6%, the financial conditions affect the success of the student 4%, the moral conditions affect the success of the student 4%, the school personnel affect the success of the student 32%, the physical conditions of the school affect the success of the student % 26, the smart board is effective on the success of the student 20%, the educational tools affect the success of the student 14%, the class size affects the success of the student 10%.

Under the theme of student-based factors, it was emphasized that the students' readiness affects the success of the student category and that the education received in primary school directly affects the later school levels. As an example of the opinions in this category, the opinions of teachers with 34t code are given below:

*"..a student who receives a good education in primary school is better in terms of readiness and this affects his success because he gains certain responsibilities, but you see, for example, another sibling did not receive primary school education properly, for example, his success may be less. When you look at the factors, the factors are the same, but the education in primary school is different. Even if the student's success is affected, basic education can be effective in terms of readiness. The child opens his eyes to primary school, if the primary school teacher has given him*

*some basic things, he comes to us more prepared, like basic concepts such as responsibility, and when he comes more prepared, it is easier to ask for that student.*

### **Opinions of Social Studies Teachers on Textbooks and Suggestions for Solutions**

Table 2 shows the participants' views on the questions "Are you satisfied with the way the subjects in the social studies textbooks are handled?" and "What kind of solutions do you offer for the problems in the social studies textbooks?"

Table 2. Findings about the opinions of social studies teachers about textbooks and their solution suggestions

	f
I am not satisfied with the textbooks	82
There should be a short and concise exam-oriented question in the form of a lecture note.	28
Textbooks need to be heavily simplified	18
Seventh grade topics are too many and abstract	14
I am satisfied with the textbooks	10
There should be more events	10
Textbooks are better than old years	6
Up-to-date information needs to be added	6
You need to inform teachers about constructivism in in-service training.	4

When the data in Table 2 is examined, I am not satisfied with the textbooks 82%, there should be a short and concise exam question in the form of a lecture note 28%, the textbooks need to be simplified very intensively 18%, the seventh grade subjects are too many and abstract 14%, I am satisfied with the textbooks 10% , there should be more activities 10%, textbooks are better than the previous years, 6%, up-to-date information needs to be added 6%, you need to give information about constructivism to teachers in in-service training 4%, a bit mixed 4%. It has been emphasized that the social studies textbooks distributed within the body of the National Education wear out quickly. As an example of the opinions in this category, 36t-coded participant opinions are given below:

*“There seems to be a problem with the book as well, because the books can be scattered a lot, the pages can break, there is such a problem. Coated papers are not used. I think there is a problem with that, after all, children are young and a book needs to be able to withstand them.”*

### **Findings Regarding the Role of Parent Attitudes in Student Success**

Table 3. Findings related to the role of parent attitude in student achievement

	f
The attitude of parents is very important in student success.	94
Parent's priority is not the child	2
There are exam-oriented parents	2
I think they put too much responsibility	2
Creating educational awareness among parents	50
Socio-economic	40
Cooperation with the school	38
family visits	24
The parent is not interested	26
Parent illiterate	12
She wants to have her own child do what the parents couldn't do.	10
Do not print	10
student coaching	2
If the MoNE becomes autonomous, necessary conditions will be met.	2

According to the data in Table 3, the attitude of the parents is very important in student success 94%, the priority of the parents is not the child 2%, there are exam-oriented parents 2%, I think they take too much responsibility 2%, raising educational awareness in parents 50%, socio-economic 40% , cooperation with the

school 38%, family visits 24%, parents irrelevant 26%, parents illiterate 12%, parents want their own child to do what they can't do 10%, no pressure 10%, student coaching 2%, if MoNE is autonomous 2% form was found. In Table 3, there are opinions about the role of parent attitude in student success. The opinions of the participants in the category that the attitude of parents is very important in student success are given below:

*"I would say that the parents are at least as effective as the school and the teacher in student success. I think that this parent's attention, warning them about their child and school, and indoctrinating them will increase success."*

## **Conclusion**

When the research findings are examined, the effects of the school situation on the readiness of the student, the high internal motivation of the student, how the child directs the child genetically and mentally, the fact that the financial conditions are directly proportional to the education, what kind of environment he grew up in, the textbook is not sufficient for the exam, and whether it has an additional source. The lack of friendship, the direct reflection of friendship relations or the level of class success on the student, the way the family raises the student, how and to what extent the family cares for their child, the expectation of the family from education, the education level of the family, the level of communication of the family with the school, the burden of more responsibilities than the student can bear, the student is very intelligent The existing capacity should be supported socially and economically, the frequency and form of nutrition, the student's not working in any job outside the school, the competence of the teacher, the teacher's love for the lesson, the attitude of the school staff, the physical condition of the school. Two conditions, educational equipment, class size are seen as factors affecting the success of the student. Karatekin (2006) conducted a research on the effect of teaching direction and way finding methods in primary school 4th grade social studies course according to multiple intelligences theory on student success. The results show parallelism with the results that they resort to traditional teacher-centered narratives due to the lack of resources to apply, the lack of tools and materials, the lack of knowledge in the use of materials, and the unclear textbooks.

When the opinions of the teachers about the social studies textbooks are examined, the majority of the textbooks are not published in high quality (Doğan & Torun, 2018), there are spelling mistakes in the book, the wrong writing of the dates given causes confusion for the students, the sharp transitions between the subjects, the denseness of the subjects. and abstract (Akşit, 2011; Atbaşı, 2007; Karakuş et al. 2014), the subject order in the book is not done well (Polat, 2006), the time is less compared to the subject density in the book (Memişoğlu & Köylü, 2015, Çetin, 2007), There is a shortage of students, the readiness level of the student, poor knowledge and visual aspects (Akdağ, 2009; Akgül & Sezer, 2007; Hussain, 2012; Roberts, 2014), there is an inconsistency between the textbooks and the central exams, and therefore each student needs additional books (Çelik & Katılmış, 2010). In the study of Aykaç (2007), it was concluded that the social studies textbook was not sufficient and there was a problem in transferring the acquisitions. The majority of the teachers stated that they taught the lesson with the notes they prepared instead of the books, thus they prepared the student for the exam. They stated that the books should be simplified, more activities should be included, up-to-date information should be dense and teachers should be given in-service training on constructivist education. When the results of the studies conducted by Arslantaş (2006), Akdağ (2009) and Sever & Koçoğlu (2013) are examined, the results are in line with the conclusion that alternative ways are sought because the social studies textbooks are not suitable for the level of the student for whom the social studies textbooks are insufficient.

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## **Scientific Ethics Declaration**

The authors declare that the scientific ethical and legal responsibility of this article published in EPESS journal belongs to the authors.

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## Author Information

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### Ozkan AKMAN

Suleyman Demirel University, Faculty of Education,  
Isparta, Turkey  
Contact mail: ozkanakman@sdu.edu.tr

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### Merve SAGLAM

Ministry of Education, Turkey

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**IconSE 2021: International Conference on Science and Education**

## Investigation of Book Reading Habits of Teacher Candidates

**Huseyin UZUM**

Orhan Sevinç Vocational and Technical Anatolian High School

**Fikret ALINCAK**

Gaziantep University

**Abstract:** The aim of this study is to reveal the reading habits of teacher candidates. In the study, it was tried to determine what the pre-service teachers' reading habits were. In the research, open-ended questions developed by the researcher were presented to the teacher candidates as a data collection tool. In the research, using the interview method, which is one of the qualitative research methods, the data obtained from 40 teacher candidates studying in different departments of Gaziantep University in the 2020-2021 academic year were analyzed by content analysis method. As a result of the research, teacher candidates, regarding reading books; They stated that it benefits people in many ways. Teacher candidates participating in the research; They stated that they could not spare enough time for reading because of the exam rush, but they still tried to read books as regularly as they could. In addition, the teachers who participated in the research said that they mostly preferred sports books, personal development books and exam preparation books because of the kpss exam. In addition, it was concluded that reading books in the research group improves people's imagination, gains effective communication skills, and gains the ability to recognize and express themselves more effectively.

**Keywords:** Teacher Candidate, Reading Books, Habit

### Introduction

The teacher is the most important and indispensable building block of the education system. (Abazaoglu, Yıldırım & Yıldızhan, 2014). Teaching is a fast-paced profession that requires a lot of effort and dedication, and teachers are responsible for managing and controlling events by thinking quickly and rationally in fast and sudden events or possible events (Ceyhan, 2014).

Aksaçlıoğlu and Yılmaz (2008), "It is the activities carried out in order to make use of free time, to follow the economy, culture and technology, and to obtain new information. According to the definition of Calp (2010), reading is "a psychomotor skill and a mental, psychological and physiological activity, which is the activity of making sense of and recognizing symbols in a text". Batur, Gülveren and Bek (2010) defined reading as the easiest way for the individual to understand and express himself and Aytaş (2005) defined it as a complex activity consisting of various movements of the five sense organs and the mind's effort to comprehend meaning. At the same time, it reveals the effect of being able to read at every stage of life in terms of achieving success in different fields and exams, making a career, creating a healthy environment and making better use of time (Ülper and Çeliktürk, 2013). This study was prepared to examine the reading habits of teacher candidates. For this purpose, answers to the following questions were sought. Teacher candidates;

1. What are their general views on reading books?
2. What are the benefits of reading a book?

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## **Method**

Interview method, which is one of the qualitative research methods, was used in the research. Qualitative research is a method that offers flexible action to the researcher compared to quantitative research, and offers different approaches to data collection method, analysis and research design (Gay, Mills & Airasian, 2006). Qualitative research is defined as research in which qualitative data collection methods such as observation, interview and document analysis are used, and a qualitative process is followed to reveal perceptions and events in a natural environment in a realistic and holistic way. Qualitative research is an approach that focuses on researching and understanding social phenomena in their environment with an understanding based on theory building (Yıldırım & Şimşek, 2013).

## **Research Group**

The open-ended question form, which was prepared to examine the reading habits of teacher candidates, was applied to 40 teacher candidates studying in different departments of Gaziantep University. The data about the research group are given in Table 1.

Table 1. Personal Characteristics of the Research Group (N = 40)

Variables	Groups	n	%
Department of Education	Turkish teacher	10	32
	Classroom teaching	8	28
	Math teaching	8	24
	Social studies teacher	7	16
	Physical Education and Sports Teaching	7	
Gender	Male	22	64
	Woman	18	36

When we look at the classroom of the prospective teachers participating in the research, it is seen that 8 (32%) 1st grade, 7 (28%) 2nd grade, 6 (24%) 3rd grade, 4 (16%) 4th grade teacher candidates. When we look at the gender, it is seen that 16 (64%) pre-service teachers are male and 9 (40%) pre-service teachers are female.

## **Preparation and Application of the Open-Ended Questionnaire**

In the research, a semi-structured interview form consisting of 2 items was used to collect qualitative data. Through the interview technique, which is frequently used in qualitative research, the researcher tries to understand unobservable situations such as attitudes, experiences, intentions, thoughts, mental perceptions, comments and reactions (Yıldırım and Şimşek, 2013). In order to prepare the interview form, a comprehensive literature review was conducted and the interview form was prepared. Then, the questions created by three experts were examined and the semi-structured interview form was finalized. In the research, interviews were conducted with 40 volunteer teacher candidates studying in different departments of Gaziantep University, using a semi-structured interview form. The interviews were recorded with a voice recorder and then these recordings were transcribed.

## **Analysis of Data**

The data obtained from the interview form used in the research were analyzed with the content analysis method used in qualitative research. In qualitative research, content analysis is used to analyze theoretically unclear themes and, if any, sub-themes (Yıldırım and Şimşek, 2013). The obtained data were recorded separately, grouped and coded. These groupings and codings were presented to the experts in the field, their final form was given according to the evaluations of the experts and prepared for analysis. With the content analysis, themes were determined for each question and the frequencies and percentages of the given themes were calculated and tables were created. Descriptive analysis was used to evaluate the data. Finally, a report was made and the findings were presented.

## **Findings and Interpretation**

In this section, the findings obtained as a result of the interviews conducted to determine the reading habits of the teacher candidates participating in the research are included.

Table 2. Distribution of the research group's views on reading books.

Themes	n	%
Giving a positive perspective	32	24.4
Developing our problem-solving skills	26	19.9
It keeps us positive	26	19.9
Developing our communication skills	24	18.3
Developing our personality	23	17.5
Total	131	100

Table 2 shows the distribution of the research group's views on reading books. When the general thoughts of the participants about reading books were examined, 5 themes emerged. It was observed that the participants expressed more than one theme. According to the percentage order among these themes; It was seen that the themes of giving a positive perspective (24.4%), improving our problem-solving skills (19.9%), keeping us positive (19.9%), improving our communication skills (18.3%) and developing our personality (17.5%) came to the fore.

Table 2. Distribution of the opinions of the research group about the benefits of reading books.

Themes	N	%
Giving a positive perspective	36	20.1
Developing our vocabulary	34	19.3
Contributing to our self-realization	30	17
Developing our thinking skills	28	15.9
It relaxes physically and mentally	25	14.2
It contributes to our more effective use of Turkish	24	13.5
Total	177	100

Table 2 gives the distribution of the opinions of the research group about the benefits of reading books. Six themes emerged from the participants' views on the benefits of reading books. It was observed that the participants expressed more than one theme. According to the percentage order among these themes; It gives us a positive perspective (20.1%), improves our vocabulary (19.3%), contributes to our self-realization (17%), improves our thinking skills (15.9%), relaxes us physically and spiritually (14.2%), helps us to use Turkish more effectively. It was seen that the themes of making a contribution (13.5%) came to the fore.

## Results and Discussion

In this part of the research, the results obtained as a result of the interviews with the teacher candidates about the habit of reading books are given. When we look at the opinions of the research group about their thoughts about reading in general, they state that reading gives a positive perspective. In addition, the research group stated that reading improves problem-solving skills, improves positive aspects, improves communication skills and contributes to the development of individuals' personalities. Therefore, based on these thoughts of the research group, it can be said that reading books contributes positively to the development of many characteristics of people.

Kuş and Türkyılmaz (2010) stated that the participants in their research generally read in order to learn new information. Yılmaz (2007) stated that the students in his research read in order to obtain more information and sometimes they read in order to get away from people. Geçgel and Burgul (2009), on the other hand, concluded in their research that students want to obtain some information among the reasons for reading.

When we look at the views of the research group on the benefits of reading books; It is seen that they develop their imagination, gain a positive perspective, improve their vocabulary and contribute to their realization. In addition, the teachers participating in the research together with reading books; They stated that their comprehension and expression skills improved, their communication skills improved, their thinking skills improved and they used Turkish more effectively.

Studies have shown that the vocabulary and thinking skills of children who acquire the habit of reading in the early stages of their age increase, and as a result; It has been observed that creative intelligence, listening and



speaking skills have increased (Örteş, 2010). Yalman et al. (2013) in his study of reading; He stated that it enables the development of culture, enables individuals to be appreciated in the society, and improves people's vocabulary and imagination. Yılmaz et al. (2009) stated in his study that university students should acquire reading habit skills.

## **Conclusion**

As a result of the research, teacher candidates, regarding reading books; They stated that it benefits people in many ways. Teacher candidates participating in the research; They stated that they could not spare enough time for reading because of the exam rush, but they still tried to read books as regularly as they could. In addition, the teachers who participated in the research said that they mostly preferred sports books, personal development books and exam preparation books because of the kpss exam. In addition, it was concluded that reading books in the research group improves people's imagination, gains effective communication skills, and gains the ability to recognize and express themselves more effectively.

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**Author Information**

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**Huseyin UZUM**

Orhan Sevinç Vocational and Technical Anatolian High  
School, Gaziantep, Turkey  
Contact e-mail:husyn\_27@hotmail.com

**Fikret ALINCAK**

Gaziantep University Faculty of Sports Sciences, Gaziantep,  
Turkey

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## **The Role of Social Workers in Health System during the Covid-19 Pandemic**

**Vladimir ILIEVSKI**

Ss. Cyril and Methodius University in Skopje

**Abstract:** Social workers in health institutions in Republic of North Macedonia are included by giving of social protection services to individuals - patients hospitalized in health institutions or come for hospital treatments. They are part of multi-disciplinary teams, their role is seen upon their professional work in the area of prevention, giving of social interventions and social services to patients and their families, interventions in times of crisis, social support and enabling of patients for good social. Social workers as health coworkers were also struck during the pandemic in their area of expert work as a result of worsened epidemiologic state in the country, the measures and recommendations for protection from Covid -19. The empirical research was done in August 2021 year, with the participants of 33 social workers working in secondary and tertiary health protection. The goal of this research is to gain information on the situation of social workers working in the health system, during the Covid -19 pandemic. A part of the research was to acknowledge the consequences of the Covid 19 pandemic's influence on the expert work of social workers in our health system. Methods and techniques of the research: A quantitative method was used in the research, and a survey questionnaire was used to study the condition and professional work of social workers in the system. The obtained results have shown that 51.55 of the surveyed individuals face problems to realize their everyday work obligations. A total of 60.6% of the participants have problems in their cooperation with institutions, citizen associations and humanitarian organizations. As for the professional help and support given by social workers, a total of 25 participants or 75.8% percent have problem in giving this kind of social service to patients and their families.

**Keywords:** social workers, health system, patients, Covid -19, social services

### **Social Work in the Health System**

Apart from social protection, it is a visible area in where social work is applied. In the world literature, we come across the terms: medical social work and psychiatric social work. American doctor Cabot is considered to be the founder of social work in health, who in 1893 year employs the first known social worker in the hospital in Boston. The essence of social work in healthcare consists of mediation between the doctor and the patient with his external environment. The social worker on the one hand helps the doctor to view the patient as a social person, and on the other hand, helps the patient to function as successfully as possible during the illness, but also after it in his family, work and local environment. (Donevska, 2014).

Modern trends in the approach to disease and health are increasingly holistic, which in addition to the medical segment, impose social factors as key predictors of people's quality of life. The social-health connection has been noticed for a long time, but it is still not sufficiently recognized and understood, because of that today there is a deficit of social workers in the field of health. Social workers today work in hospitals, health centers, mental health centers, social health care institutions, where the needs of users are different, which requires good professional competencies (Sharic, N, Dudic, A. Shadic A. 2018). Social workers in health in our country are most often represented in the secondary and tertiary health care as professional associates. They provide social protection services in the form of social work with patients who are hospitalized or call for outpatient treatment.

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They are part of multidisciplinary teams, their role is seen through their professional work in providing social interventions, crisis interventions, social rehabilitation and training of patients for their functioning in everyday life, as well as in many other forms of assistance and support, which facilitate their return to the environment. Social workers as a professional profile are involved in the prevention, treatment and rehabilitation of certain health diseases, while paying attention to family, environmental, cultural and other factors that may be the cause of occurrence and development of diseases in patients.

From the experience so far, it can be noticed that social workers perform various activities, depending on the category of patients they work with and depending on the health institution where they are employed. The most common activities they perform in their professional work are: Collecting and evaluating data about the patient and his family, the immediate and wider social environment in order to prepare the social history. Based on the data contained in the social history and the previous assessment of the patient, the social worker prepares an individual plan for working with the patient where the patient's needs are determined, the goals that are expected to be achieved, the interventions he undertakes to achieve the goals, the time frame for their realization, in full agreement with the patient (Ilievski, 2013). The treatment of providing different shapes of social interventions and social services help patients to better understand and solve the arisen problems.

Regarding their professional work, social workers mostly work in the area of:

- Participates in the admission of the patient in the health institution;
- Participates in teamwork in the treatment of patients as a health associate;
- Performs psycho-social assessment of patients in terms of identifying their risks and needs;
- Prepares a social history for each patient who is hospitalized in the health institution;
- Prepares an individual treatment plan with the patient / patients;
- Keeps documentation for the patient related to the social services received by the patient / patients;
- Informs the team about the undertaken social activities for the patients and their families;
- Conducts individual and group work with patients;
- Provides professional assistance and support to patients and their families;
- Provides individual and group advisory work;
- Education about the disease of patients and families together with the team (causes, development, treatment, prognosis);
- Providing psycho-social support to patients and their families;
- Monitoring the course of treatment of patients;
- Development of a social network of support during the hospital treatment and outside the hospital treatment;
- Professional work with patients' families (improvement of communication between family members, strengthening of mutual relations, strengthening of cohesion in the family) and
- Connects with the institutions in the system for assistance in exercising the rights and services of the patients from the health care and social protection system. Collaborates with citizens' associations, humanitarian organizations and others.
- Participates in the discharge of the patient from the health institution.

During the treatment in health institutions, in the work with patients, the social worker applies methods of work with: individual, group and local community. Educated social workers also apply systemic family therapy.

## **The Role of Social Workers during the Covid-19 Pandemic**

The Covid-19 pandemic is a serious global health problem for society as a whole, which means "an objective event or situation caused by complex social events, natural disasters and deviant behaviors that adversely affect an individual, social groups or communities in a way that makes difficult or disables social functioning and satisfying of human needs, the consequences of which cannot be overcome without organized social support" (McCoy, 2000).

From the outbreak of the pandemic until today, countries around the world have had to respond in the first line of dealing with the negative effects of it through health care systems. Through the health care systems, so they could give an appropriate response for protection and treatment, but also prevention of the population. Although health and the smooth functioning of health care systems have become a priority, in the period since the outbreak of the Covid-19 pandemic, as a result of protection measures (isolation, physical distancing and restricted movement), social functioning has become difficult and disabled throughout the world population. In order to overcome the situation of difficult and disabled social functioning of all, including the stakeholders of

the health care systems worldwide and in the Republic of North Macedonia, who should provide assistance and support to the citizens, the main need arisen is a way to develop good mechanisms for smooth functioning of the health care systems in conditions of emergency and crisis, but also to design standards and procedures for action of the actors in the citizen protection systems, in conditions of pandemic, state of emergency and / or crisis.

From the very first day, when the Government of the Republic of North Macedonia faced the problem of the pandemic, it seriously follows and monitors the situation with the coronavirus infection and in accordance with the recommendations of the World Health Organization through the recommendations received from the Commission for Infectious Diseases, as an expert advisory body for handling of Coronavirus/COVID-19, constantly monitors the epidemiological situation in the country. Based on that, the Government adopts measures and recommendations for protection and prevention of Covid-19, including the working protocols of the health institutions. In order to respond to the needs of patients in the country who are positive and sick patients with Covid-19, and who need hospitalization, the line Ministry of Health established regional Covid centers in cities where there are already general hospitals and health homes.

Social workers as part of professional associates in health care institutions perform their professional work in accordance with all adopted measures, recommendations for protection and prevention of Covid-19 and the protocols of health care institutions. They are included in the team in the part of providing social services from social protection to patients who are in hospital and in day hospital treatment and are at social risk.

Due to the Covid-19 pandemic, many of the activities of social workers were justifiably prevented or carried out with difficulty in carrying out their professional work, which referred to: professional assistance and support to patients and their families in overcoming individual and family problems aimed at strengthening patients, ensuring and maintaining well-being and independence and their long-term training for independent overcoming of social problems, group work with patients, individual and group counseling work to prevent, mitigate and overcome the consequences of patients' social problems, direct meetings and contacts with patients' families, community social work, field activities and family visits, cooperation with institutions, citizen associations, humanitarian organizations, etc. Problems have appeared in informing and referencing patients to available social protection rights and services, the primary estimation and referencing to other institutions in order to fulfil an unobstructed approach to their rights and services they require.

## Methodology

The goal of this research is to gain information on the situation of social workers working in the health system, during the Covid -19 pandemic. A part of the research was to acknowledge the consequences of the Covid 19 pandemic's influence on the expert work of social workers in our health system.

*Methods and techniques of the research:* A quantitative method was used in the research, and a survey questionnaire was used to study the condition and professional work of social workers in the system. The aim of the research is to find out what problems social workers working in the health system face in their professional work with patients and their families during the Covid-19 pandemic. The research sample included 33 social workers working in secondary and tertiary health protection in North Macedonia.

## Results

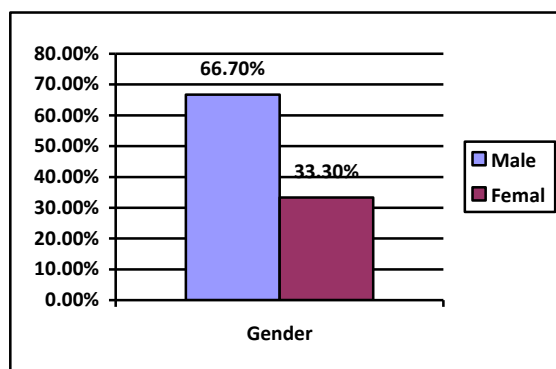


Figure 1. Gender structure of the respondents

Regarding the gender structure of the respondents, 23 or a total of 66.7% of the respondents are female, and 10 respondents or 33.3% are male social workers.

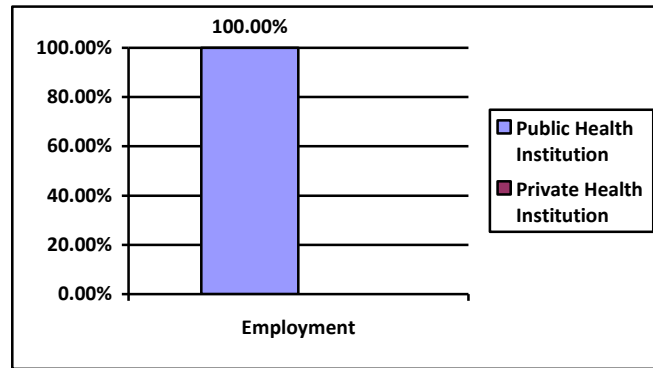


Figure 2. Employment of respondents

In terms of employability, a total of 33 respondents, or 100% are social workers working in public health institutions of secondary and tertiary health care in the country.

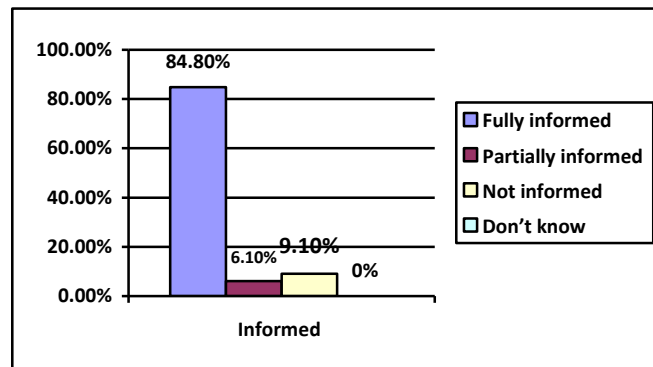


Figure 3. Informed the respondents

Regarding the questions how many of the respondents were informed about the measures and recommendations for protection and prevention of Covid-19 from the health institution where they work. A total of 27 or 84.8% stated they were informed, while 9.1% of the respondents were insufficiently informed by the health institutions where they work.

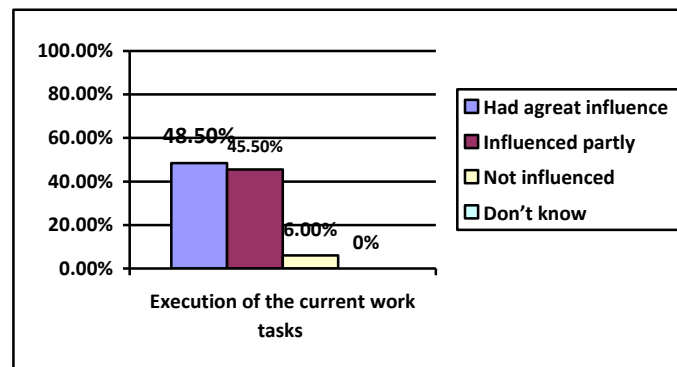


Figure 4. Execution of the current work tasks

Regarding the impact the Covid-19 pandemic had on social workers in performing of their current work tasks, a total of 15 or 48.5% of the respondents stated that the Covid-19 pandemic has a very negative impact on performing of their current work tasks with patients and families, and a total of 13 or 45,5% consider to be partially affected.

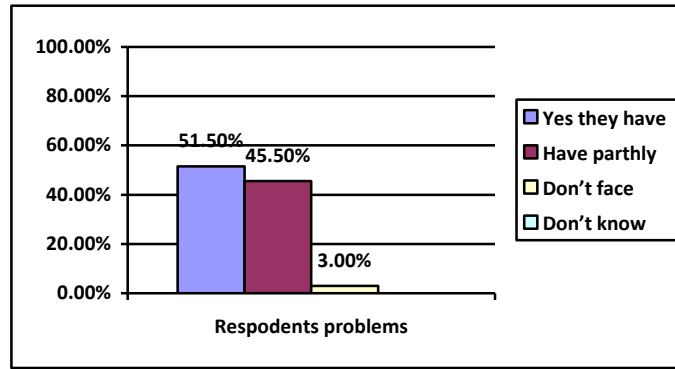


Figure 5. Problem's respondents

Regarding the question of what problems, they face while performing their professional work, a total of 17 respondents or 51.5% had a problem in the part of the group work with the patients. This is due to the result of observance and observance of measures and recommendations for protection and prevention of Covid-19, including the working protocols of the institutions.

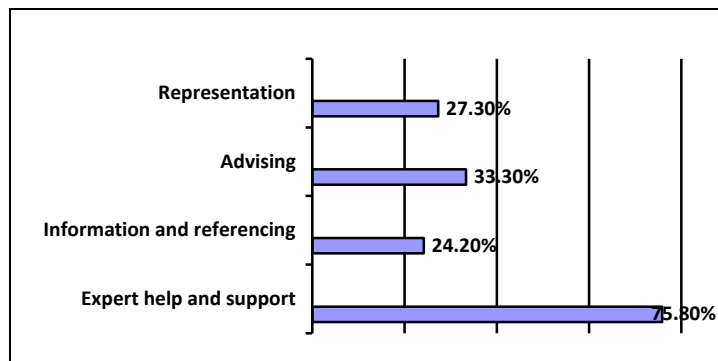


Figure 6. The type of social services

Regarding the question which social services from the professional work with patients and their families were a problem in terms of their provision, a total of 25 respondents or 75.8% stated that it was the provision of professional assistance and support, a total of 8 or 24.2% respondents thinks that informing and referring patients to institutions for exercising their rights in health and social care is a problem.

## Conclusion

The onset of the COVID-19 pandemic worldwide has caused a serious health crisis that has grown into a socio-economic and humanitarian crisis with strong negative implications for countries. Due to the rapid spread of the virus, many countries have been forced to impose full or partial restrictions on the movement of people, quarantine, isolation, closure of some public facilities in order to localize the infection and maximize the sustainability of the health, economic and social system in conditions of a present pandemic.

The Republic of North Macedonia in conditions of Covid-19 pandemic mobilized all necessary resources in the country, especially in the field of health care, to respond to the needs of citizens in the field of prevention and hospital treatment of positive and sick patients from Covid-19 in health facilities in the country. A series of measures and recommendations for protection and prevention of Covid-19 were adopted, including the work protocols in institutions.

Social workers as part of professional associates in the health care institutions on the secondary and tertiary level of health care, with the appearance of the pandemic and during the past period of time, in their professional work are guided in accordance with the adopted measures, recommendations for protection and prevention and protocols for work of health institutions in conditions of the Covid- 19 pandemic.

From the conducted research, it was concluded that the Covid-19 pandemic has influence on the area of the professional work of social workers in the part of: individual and group social work with patients and their

families, providing professional assistance and support to patients and their families, in individual and group counseling work, informing and referring patients in social and health institutions about the rights and services of social protection.

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## Author Information

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### **Vladimir ILIEVSKI**

PhD, Associate Professor  
Ss. Cyril and Methodius University in Skopje, Faculty of  
Philosophy, Institute of Social Work and Social Policy  
Blvd. „Goce Delcev 9/A ,1000 Skopje, North Macedonia  
Contact e-mail: vilievski@zf.ukim.edu.mk

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## **Investigation of Relative Opinions of Teacher Candidates in Pedagogical Formation Education**

**Hasan DEMİR**

Istanbul Gaziantepçililer High School

**Fikret ALINCAK**

Gaziantep University

**Abstract:** Public institutions staff recruitment exam center in Turkey for the first time in 1999 Typewriting State Examination (DMS) has been tested with an exam. The name of this exam was later changed to the Public Personnel Selection Examination (KPSS). This examination was used as a criterion in the teacher appointments of the Ministry of National Education as in other public institutions. In 2013, it was decided that KPSS exam should not be sufficient in the purchase of teachers and it was decided that the students should take the exam in some branches of Teaching Area Knowledge (ÖABS) tests. This study was carried out in order to determine the opinions of physical education teacher candidates who received pedagogical formation training about menı KPSS eđitim exam. The open-ended questions developed by the researcher as a data collection tool were presented to the candidates of physical education teachers who received pedagogical formation training. Using the interview method which is one of the qualitative research methods, the data obtained from physical education teacher candidates who received 50 pedagogical formation education from different universities were analyzed by content analysis method. As a result of the study, it was concluded that the majority of physical education teacher candidates who received pedagogical formation education did not have enough created by “KPSS” exam for teacher assignment and selection; It has been reached.

**Keywords:** Pedagogical Formation, Teacher Candidate, Kpss Exam

### **Introduction**

Teacher assignments are different in every country. In Turkey, teachers are selected by Public Personnel Selection Exam which is organised by an institution called Student Selection and Placement Center. There is also a similar system in sme countries such as Germany, Austria, France, Spain, Luxemborg and in some states of United States. These exams are usually paper based but sometimes they may be orally in some countries such as Belgium, Greece, Netherlands and Portugal. (Semerci and Özer, 2006). When we look at the statistics, there are researches about this exam, anxieties of candidates, views of teacher candidates in recent years. (Karataş and Güleş, 2013; Toker Gökçe, 2012; Tösten et al., 2012; Döş and Sađır, 2012; Çimen and Yılmaz, 2011; Karaca, 2011; Nartgun, 2011; Sezgin and Duran, 2011; Yılmaz and Altinkurt, 2011; Gündođdu et al., 2008; Baştürk, 2007; Eraslan, 2004). These researches are usually practised to those who are still in faculties or attending to the courses. Different datas from different groups are thought to help to find out different perspectives. Public Personnel Selection Exam is very important in the candidates’ lives. In this study, we aim the views of candidates about this exam. The present situation of this exam on these candidates is the main objective of this study. Qualified education can be obtained by only qualified teachers. Therefore, teachers should believe themselves first and should be full educated and should have positive behaviours towards their jobs.

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In this study, it was prepared to determine the opinions of prospective teachers who took pedagogical formation about "KPSS". For this purpose, answers to the following questions were sought.

Pre-service teachers receiving pedagogical formation;

1. What are their general thoughts about Public Personnel Selection Exam?
2. Do they think that this exam will make a role in their jobs for the future?
3. What are their expectations from this exam ?

## **Method**

In the research, case study, which is one of the qualitative methods, was used. Qualitative methods are more flexible and offers different approaches than quantitative methods. (Gay et al., 2006). Case study searches the case in its own life and situation frame and when there are more than one evidence. ( Yin, 1984; Yıldırım & Şimşek, 2006).

## **Research Group**

The open-ended question form, which was prepared to determine the opinions of the teacher candidates who took pedagogical formation about "KPSS", was applied to 50 teacher candidates who graduated from different universities. The data about the research group are given in Table 1.

Table 1. Personal characteristics of the research group (N = 50)

Variables	Groups	n	%
Gender	Male	30	60
	Woman	20	40

When we look at the gender of the pre-service teachers participating in the research in Table 1, it is seen that 30 (60%) pre-service teachers are male and 20 (40%) pre-service teachers are female.

## **Preparation and Application of the Open-Ended Questionnaire**

To prepare the interview forms, 100 teacher candidates we asked to write a composition about their thoughts for Public Personnel Selection Exam. After checking out these compositions, the interview forms were drafted. One of the logical ways to test the measuring instrument is to refer to the expert opinion.( Büyüköztürk, 2006 ) After the experts checked and made the necessary regulations on the interview forms, 1 questions to determine the personality features and 3 open-ended questions were asked. These questions are below.

According to the Physical Education Teaching Graduates:

1. What are their general thoughts about Public Personnel Selection Exam?
2. Do they think that this exam will make a role in their jobs for the future?
3. What are their expectations from this exam ?

## **Analysis of Data**

The datas obtained from the interview form were analyzed via content analysis method. Content analysis is used in qualitative researches when there are subthemes. (Yıldırım & Şimşek, 2006 ). The data were saved separately and coded as groups. These groups and codes were presented to experts and then given the final shape and get ready for analysis. Themes were shaped and measured their frequencies and percentages and made charts from them. Descriptive analysis was used while making data analysis. Finally, reports were made and the findings were presented.

## Findings and Interpretation

In this section, the findings obtained as a result of the interviews with the teacher candidates in order to determine the opinions of the teacher candidates who received pedagogical formation training on "KPSS" are included.

Table 2. Distribution of the opinions of the research group about the kpss exam

Themes	n	%
Unnecessary Exam	16	31.4
Not very qualitative Exam	8	15.7
Not a very Systematic Exam	7	13.8
Necessary Exam	6	11.8
Study-based Exam	4	7.8
Difficult Exam	4	7.8
Annoying Exam for Teacher Candidates	2	3.9
Frightening Exam	2	3.9
Should be More Field-based	2	3.9
Total	51	100

In Table 2, We see that distribution of views about Public Personnel Selection Exam. There are 9 themes. We see that participants have views about more than one theme. When we look at the percentages, we see that %31.4 think that it is an unnecessary exam. %15.7 think that it is not a qualitative exam. %13.8 think that it is not a systematic exam. %11.8 think that it is a necessary exam. %7.8 think that they should study a lot to pass it. %7.8 think that it is a difficult exam. %7.8 think that it is an annoying exam. %3.9 think that it is a frightening exam. %3.9 think that it should be a more Field-based exam.

Table 3. Distribution of the opinions of the research group on how this exam will play a role in their profession in the future

Themes	N	%
No, it will not make any contribution.	34	63
Yes, it will make a big contribution.	13	24
It will make a contribution to a certain degree.	7	13
Total	54	100

In Table 3, the percentages of the opinions of the research group on the contribution of Public Personnel Selection Exam on teaching profession are shown. Three opinions of the research group on the contribution of Public Personnel Selection Exam on teaching profession have been obtained. These themes are: 'No, it will not make any contribution.' (%63), 'Yes, it will make a big contribution.' (%24), 'It will make a contribution to a certain degree.' (%13).

Table 4. The percentages of the opinions of the research group on what they expect from Public Personnel Selection Exam

Temalar	N	%
I want to be appointed as a teacher.	25	45.5
I don't have any expectation.	13	23.7
The exam must be fair and reliable.	5	9.1
There should be no exam.	4	7.2
The exam system should be changed.	3	5.5
It should be knowledge-based exam.	2	3.6
The exam is efficient enough to test our knowledge.	2	3.6
The questions should be easier.	1	1.8
Toplam	55	100

In Table 4, the percentages of the opinions of the research group on what they expect from Public Personnel Selection Exam are shown. Eight opinions of the research group on what they expect from Public Personnel Selection Exam have been obtained. The research group has stated more than one opinion. These themes are: 'I want to be appointed as a teacher.' (%45.5), 'I don't have any expectation.' (%23.7), 'The exam must be fair and reliable.' (%9.1), 'There should be no exam.' (%7.2), 'The exam system should be changed.' (%5.5), 'It

should be knowledge-based exam.’ (%3.6), ‘The exam is efficient enough to test our knowledge.’ (%3.6), ‘The questions should be easier.’ (%1.8).

## **Results and Discussion**

When we have a look at the opinions of the research group on Public Personnel Selection Exam, we can easily see that the majority of them think this exam is not efficient enough to test our knowledge, and its system should be changed. Furthermore the research group believe that Public Personnel Selection Exam is required, hard, and creates anxiety and fear among teacher candidates. Considering this fact, the efficiency of holding such an examination to assign candidates as teachers is a matter of debate, and it can be said that this exam is a must to assign candidates as teachers for the first time. We can also say that it creates fear and anxiety among teacher candidates. In a study conducted by Tösten et al., (2012) in order to learn the opinions of teachers on Public Personnel Selection Exam it was conducted that teachers think this exam is not capable of choosing the right candidates in keeping with the principles of Ministry of National Education. On the other hand, in a study conducted by (Şimşek and Akgün, 2014) on the views of Social Studies teacher candidates about the field information part (ÖABS) in Public Personnel Selection Exam they concluded that Public Personnel Selection Exam alone is not enough to assign candidates as teachers for the first time. The study conducted by Semerci and Özer (2006) found out that teacher candidates doesn't think Public Personnel Selection Exam is fair and required. Therefore, both of these studies have a lot in common with our findings.

When asked about the contribution of Public Personnel Selection Exam to teaching profession, majority of the research group stated that it will not make any contribution at all. However, a few teacher candidates stated Public Personnel Selection Exam will make a big or partial contribution to teaching profession. As a matter of course, we can say that Public Personnel Selection Exam will not make any contribution to teaching profession. When asked about what they expect from Public Personnel Selection Exam, majority of the research group stated that they want to be appointed as teachers. Furthermore, some of them stated that the exam must be fair and reliable, there should be no exam, the exam system should be changed, and it should be knowledge-based exam. From these points of views, we can say that teacher candidates just want to be appointed as teachers. In a study by Ensari and Deniz (1992) to find out Faculty of Education students' job-related expectations, majority of the students told that they believed they could find a job in their fields after they graduate. Considering these, anxiety and stress teacher candidates feel while preparing for Public Personnel Selection Exam have a negative effect on their attitude towards teaching profession. The results of these researches support our findings.

## **Conclusion**

As a result of the study, it was concluded that the majority of physical education teacher candidates who received pedagogical formation education did not have enough created by “KPSS” exam for teacher assignment and selection; It has been reached.  
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## **Acknowledgements or Notes**

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## **Scientific Ethics Declaration**

The authors declare that the scientific ethical and legal responsibility of this article published in EPESS journal belongs to the authors.

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### Author Information

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**Hasan DEMİR**

İstanbul Gaziantepçiler High School,  
Gaziantep, Turkey  
Contact e-mail:germisli27@hotmail.com

**Fikret ALINCAK**

Gaziantep University Faculty of Sports Sciences,  
Gaziantep, Turkey

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