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## A Case Study of Peer Tutoring Implementation at University: Investigating the Students' Difficulties that Were Faced with the Method and the Tutors' Difficulties in Applying It\*

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### ABSTRACT

Peer tutoring has been implemented for two academic years (2017 - 18 and 2018 - 19) to a course and the internship of a postgraduate program of the Department of Education Sciences in Early Childhood of the Democritus University of Thrace. Until now fourteen students (eight students and six tutors) have been involved to the method. The purpose of this qualitative study is to research the students' difficulties that were faced with the peer tutoring method and the difficulties of the tutors in applying it, as well as the ways in which they were dealt with. Therefore, this research helps to highlight the importance of this method for the academic development of undergraduate and postgraduate students of the particular University Department and helps to collect data that could support the further development of the method itself in the Department.

#### Keywords:

Peer tutoring; peer learning; student centered learning; higher education

### 1. Introduction

In the contemporary literature 'peer tutoring' describes the teaching method where a more capable and experienced student in knowledge and skills teaches a less capable one (Ntoliou, Papatzikis & Pliogou, 2016) and also, more broadly, individuals from similar social groups -non professional teachers- who help each other learn and learn by teaching themselves (Topping, 1996; 2005). As for the University, it refers to students, undergraduate or postgraduate, who assist their colleagues in courses that they face difficulties. It is a widespread method in the higher education, compatible with the requirement of the improvement of teaching and learning quality in institutions with cost effective interventions (Stigmar, 2016). A basic benefit of implementing peer tutoring in University is that enables students to change study habits and improve (Pugatch & Wilson, 2018) but its importance can also be seen broadly in the field of complex social issues management, involving students at risk of drop out, integration of minorities, equal opportunities for learning and equal access to educational resources (Faroa, 2017). The above issues are relevant to higher education internationally. In the EU many students drop out of their studies (Ministry of (Greek) Education, Research and Religious Affairs, 2016) and a similar situation is also reflected in the United States literature (Pugatch & Wilson, 2018).

A large number of tutors in Universities usually come from postgraduate students with the major advantage of being close to their students' experience level, so that the latter share their difficulties more comfortably

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with them. On the other hand, the main disadvantage is they may not be fully capable of approaching the concepts and content they are negotiating in terms of teaching (Clarence, 2016).

Research on University peer tutoring comes mainly from the United States and the United Kingdom, although its spread worldwide is noticeable. Stigmar (2016) identified thirty studies from thirteen countries in a recent overview of research articles published between the years 2010-2013 on face to face tutoring among students. Nearly two-thirds of them come from the United States and the United Kingdom. Other countries represented are: New Zealand, South Africa, Australia, Thailand, Belgium, Sri Lanka, Turkey, Spain, Hong Kong, Mexico and India (Stigmar, 2016). This overview reveals benefits of peer tutoring in critical thinking development, self-regulation, time management, organizational skills and other related to generic skills and metacognition (Stigmar, 2016). Similar benefits are also recognized in earlier studies (Cohen, 1986). Finally, this method is proved to be effective in the academic performance of students (Arco-Tirado, Fernández-Martín, & Hervás-Torres, 2019), even more than professional tutoring (Russ, 2015).

In Greece, we identified only a study by Nikolarazi, Karagianni & Filippatou (2013) on the effect of a peer tutoring program on academic access of students with disabilities and a structure that offers support to students with disabilities through a peer tutoring method in the University from which the above research comes from (Nikolarazi, 2013). Another application of peer tutoring in Greece is in the Department of Education Sciences (DESEC) of the Democritus University of Thrace (DUTH) in the context of the course *Personalized Learning with Supervision: Theory and Research*, which is taught with theory and practical applications, both in the undergraduate and recently in the postgraduate program. In the postgraduate program peer tutoring is also eligible as an option for internship in the frame of the above course.

We can conclude from the above that the method of peer tutoring is not widespread in Greece in the Universities either as a research or as a means of supporting students' studies. However, the benefits of introducing and institutionalizing the method in higher education appear to be multifaceted and make it important to conduct empirical research and explore the field. The importance of the present case study is embedded in the above framework as it explores ways and procedures for the implementation of peer tutoring in the context of DESEC. Furthermore, this study will contribute to a deeper understanding of aspects and functions of the method. That is of general interest to academics who will be intrigued to implement it in other higher education institutions in Greece where students face similar problems.

## **2. The Research Framework**

The research was conducted in the context of the course *Personalized Learning with Supervision: Theory and Research* which is taught in the 2nd semester of the postgraduate study program of the Department of Education Sciences (DESEC) of the Democritus University of Thrace (DUTH) during the Compulsory Course *Innovative Pedagogical Approaches and Alternative Types of Education* and also in the context of the internship of the same postgraduate program. The purpose of this course and the internship, in the field of peer tutoring, is for the post graduate students to acquire learning experiences as well as professional and/or social skills by providing assistance and support to undergraduate students in courses that they face problems.

The above course (first cycle of implementation) was taught during the spring semester of the academic year 2017-18 and the internship (second cycle of implementation) took place in the winter semester of the academic year 2018-19. In the first cycle, there were 5 theoretical and 6 laboratory lessons, while in the second cycle there were 3 theoretical and 7 laboratory lessons, all of which lasted for two hours each. Theoretical lessons were conducted using the method of lectures and the labs included practical application of theory. During the lessons, none of the participants noted more than one absence.

### **2.1. The Research Aim**

The present research was carried out for the needs of the course improvement in DESEC with the aim of understanding the students' difficulties that were faced with peer tutoring and the difficulties of the tutors in applying the method, as well as the ways in which they were dealt with. Another purpose is to explore ways and procedures for the implementation of peer tutoring in the specific context of DESEC, as a tool to support students who encounter difficulties in specific courses.

## 2.2. The Research Methodology

This is a qualitative study. For the collection of the data we used semi-structured and participatory observation techniques and structured questionnaires with open-ended and closed-ended questions. Thematic analysis has followed. Students' answers in the questionnaires as well as the supervisor's notes from the observation during the laboratory lessons were studied in order to identify the basic subject patterns and formulate specific categories. According to Bryman (2017), a subject pattern is a category that the analyst identifies through his data, which is linked to the research focus. It is based on codes derived from field notes and it offers the researcher the basis for a theoretical understanding of his data. The content of the questionnaires and the notes was/were divided into four themes as follows:

1. The difficulties of undergraduate students that were faced with the peer tutoring.
2. The difficulties that the tutors faced during the peer tutoring implementation.
3. Tutors' practices to support students during peer tutoring.
4. Tutors' practices to deal with their difficulties during the peer tutoring.

These topics were chosen having the phrase as a unit of analysis, meaning the organized syntactic words or even a single word - if there was no phrase - with a single meaning, enclosed in two punctuation marks, often repeated clearly in the texts. These were divided into comparable units, categories were extracted and thematic analysis was based on specific meanings. The first reading of the texts and the choice of thematic patterns were the starting point for the formulation of the research questions of the present work, which constituted the guidelines for systematic qualitative analysis.

## 2.3. The Research Questions

1. What difficulties did the students face with the peer tutoring?
2. What difficulties did the tutors face during the peer tutoring implementation?
3. How were the students' difficulties faced by the tutors during the peer tutoring?
4. How did the tutors themselves deal with their difficulties during the peer tutoring?

## 2.4. Subjects

The study involved 14 students: six female tutors (code letters: An., Ath., D., E., M., Mat.), all native, aged 24-52 and eight tutees: four male and four female undergraduate students, 22-25 years of age (code letters: M., P., X., E., LM., Ath., G., MS. ). Two men of the tutees were Albanian native speakers (MS and LM) and also two others, one male and one female, were Turkish native speakers (X and G, respectively), members of the Muslim minority of Greece. One native male student (P) had learning difficulties (dyslexia) and participated in both cycles on his own initiative. All six of the tutors implemented the method in the first cycle and four of them also in the internship. The tutees were selected by the supervisor of the process on specific criteria: they had failed the exams to the two courses that she teaches in the Department and had extremely low grades in repeated examinations. These courses are the *Evolution of Pedagogical Thinking* and *Introduction to Education Sciences*.

## 2.5. Data Collection and Tools

Data were collected during the implementation of the method at the laboratory lessons in the two cycles (course and internship) of the postgraduate programme. Tutors assisted their students in one course of the above two (*Evolution of Pedagogical Thinking* or *Introduction to Education Sciences*). Communication during tutoring was face-to-face and was recorded by the supervisor through semi-structured and participatory observation of the interactions and practices that were freely recorded on a structured observation sheet per pair of students. Specifically, the researcher was present during the course of all the meetings, wandered among the pair of students (the tutor and the undergraduate student), sat at a table next to each of the pair and recorded behaviors, mainly verbal, indicative of their tutoring practices and the reaction of the students. The duration of the observation was two hours for each tutoring session and the total time of observation was 26 hours (12 for the course and 14 for the internship).

Structured questionnaires with open-ended and closed-ended questions were additionally used to collect data from the subjects: three (3) questionnaires for tutors, one of which was administered before the peer tutoring implementation, after attending the lectures and two (2) after the peer tutoring implementation. Of

the last two, the first included focused questions on the tutorial meetings in each lesson, while at the same time asking the student to present particular facts, evaluative judgments and process assessments. The second required critical reflection in free form with the help of keywords such as: ‘difficulties’, ‘experiences’, ‘attitudes’, ‘strategies’, ‘mistakes’, ‘role’, ‘solutions’, ‘communication’, ‘progress’, ‘emotions’, ‘awareness’, ‘use of time’, ‘discussion’, ‘help’, etc. and it concerned both the subject and the social skills, attitudes and values acquired or enhanced by both the tutor and the student. More specifically, regarding the questionnaires of tutors, what was given before the implementation of the method, included thirteen (13) questions, six (6) of which suggested clarifying sub-questions. An illustrative example of a question asks the tutor to present as accurately as possible the student's cognitive profile and the way in which he obtained the information. As for the questionnaire that was given after the implementation of the method, it included fourteen (14) questions, eight (8) of which had sub-questions. A typical example is a question which asks the tutor to answer if the student has acquired the ability to express in writing the knowledge he has acquired and if so, to mention an element that states it.

Regarding the students' questionnaires, what was given before the implementation of the peer tutoring included seven (7) questions, two (2) of which had sub-questions. An indicative question is: What or which exactly is/are the difficulty/ies you have in relation to this course? With the written expression? [Choose] Yes or No. If so, what exactly? What was given after the implementation of the method included twelve (12) questions, six (6) of which had sub-questions. A typical question of this is: Were the needs you expected to meet through your meetings with the tutor met? [Choose] Yes or No. In any case, justify.

Usually, in the questionnaires given, there are first closed-ended questions (yes / no) and then open-ended questions that students were asked to answer according to the answer they gave before. At the same time, the questions of both the tutors and the students, invited them to think about the practices of the other partner (their peer) as well as their own and end up in an expression of self-evaluation or satisfaction of expectations and needs, without omitting the possibility of expressing a proposal to improve the procedure.

In general, the two questionnaires aimed at investigating the practices and skills of tutors before and after the implementation of support, in order to realize the aspects of the task they needed to complete, the possible difficulties in applying the theory in practice, their attitude towards each other and self-evaluation. The students' respective questionnaires were also intended to understand their difficulties, to determine if and how they overcame them, to express their needs and expectations and to self-assess. As far as their content is concerned, it was relied on existing theoretical and empirical international literature about peer tutoring in higher education, adapted to the Department's context and the students' cultural background (see: Bachelet, 2010; Centre étudiant de soutien à la réussite des Services aux étudiants, 2018; Danner, Kempf & Rousvoal, 1999; Fornasieri, Lafont, Poteaux & Seré, 2003; Moussay, Étienne & Jacques Méard, 2009).

In order to assure the internal validity and reliability in the research we triangulated the data from the students' questionnaires (tutors' and tutees') and the supervisor's observations.

### 3. Data Analysis - Results

#### 3.1. Students Talk about Their Difficulties

The study of students' written data highlighted four main categories of difficulties that are related to language, the subject and the study of the subject and one of them made reference to his mental state (Table 1).

**Table 1.** Thematic analysis: tutees' reason for their difficulties

The numbers in parentheses refer to the frequency of the category in the tutees' speech.

Categories	Code letter of subject	Sub-categories	Topics
Language (16)	P;X;E;Ath; LM;M;G; MS	Oral Written	Vocabulary, Expression, Grammar (syntax, spelling, expression, structure), Understanding, Etymology, Reading
Subject/Science(9)	X;Ath;LM; G;M;P	Terminology Content	Wording, Understanding, Interpretation, Ignorance
Course Study (8)	P;X;E;LM; MS;M	Organization	Time, Material, Thought, Schedule
Mental State (1)	X	Anxiety	

These are comprehensible and reasonable difficulties, especially for the students (tutees) with different mother tongue (Albanian and Turkish) and the one with learning difficulties (dyslexia), which impedes their progress in combination with demanding courses. These courses, as we have already mentioned, are "Introduction to Education Sciences" and "Evolution of Pedagogical Thinking" and they have a high level of complexity, not only for Greek non-native speakers, but also for natives, as the supervisor of the procedure who teaches them may assure.

Consequently, students need help to overcome language barriers which -in combination with the increased level of complexity of the courses- make them even more difficult to overcome, as it is not easy to understand and interpret terms and specialized concepts. In addition, students encounter difficulties in organizing their study, due to lack of time -as some work or have many courses left to obtain their degree- and due to the absence of a personal study and organization of their thinking. Furthermore many students of DESEC pass entrance exams with low marks, having poor basic knowledge, which makes adaption and progress in their studies even more strenuous. All those characteristics challenge their tutors to act in multiple levels as teachers, mentors and inspirators.

How do students articulate their difficulties? The student with learning difficulties (P) states from the beginning: "I have a problem with vocabulary, [...] spelling, syntax [...] terminology, dense text" (P/B2.1/before)<sup>2</sup>. His tutor identifies his difficulties from the very first session, such as "He cannot say in his own words the meaning of a word [self-discipline]. He has difficulty in verb inflection and has difficulty in the meaning of the words: 'unconscious', 'predisposition'. He can't answer" (P/18-11-2018).

These are significant difficulties that fall into all three categories, as well as those mentioned by X, a language learner (Turkish native speaker, member of the Muslim minority of Greece): "Grammar, syntax, spelling [...], speaking, reading text, pronunciation [...], difficulty in understanding teacher requirements "(X/B1.2/C/D/before) and difficulty with "some concepts in the text, difficulty in interpreting scientific speech" (X/B.2.1/before). Difficulties that the supervisor also states: "He writes a sentence and encounters obstacles in spelling: words' behavior 'and' discipline" (X/25-11-2018). Their difficulties are clearly recorded, indicating the awareness of their problems and at the same time their willingness to solve them through tutoring. The student himself cites the reasons for the difficulties: "Losses caused by minority education, poor parenting," (X/C.1), and explains that he systematically followed and repeated courses and borrowed notes (X/E).

Other non-native students are also aware of their level of language and scientific terminology. Among them, G, (Turkish native speaker, member of the Muslim minority of Greece) who wrote her answers with the help of tutor, states: "What I find most difficult is the organization and formulation of a sentence with the correct syntax [...], the etymology of a compound word" (G/ B1.2/B2.1/before). Her statement is confirmed by the observation of her supervisor: "She reads the sentence and says that he has difficulty spelling it using the word 'Middle Ages'" (G/20-05-2018).

MS, an Albanian native speaker, says -before the tutoring begins- that he has difficulty in writing: "I find it difficult to put my thoughts into paper [...] to organize my reading and my time to read", while declaring 'no' to understanding scientific discourse (MS/B1/B1.2/B2/C/before). Finally, LM, also an Albanian native speaker, has difficulties in written expression, understanding of scientific discourse, especially with "the meaning of unknown words" and "limited time due to work" (LM/B1/B2/B2.1/D/before). He also states that he finds it difficult in "difficult vocabulary", justifying: "I repeatedly studied the lesson to understand it" (LM/B2.1/Z/E/before). Although his oral speech is extremely limited during the sessions, the supervisor's remarks probably reinforce his answers to the questionnaire: "He is not able to answer in written form, having read the notes first but not seeing them" (LM/27 -05-2018).

M encountered similar difficulties, even though she is neither non-native speaker nor a person with learning difficulties. "Written expression" is difficult for her, as well as the imprint of her knowledge in scientific terms, explaining: "In all my classes I find it difficult to write on paper what I mean with the appropriate scientific words", while there is no difficulty in understanding scientific discourse (M/B1/B1.2/B2/C/before), stating at the same time: "Through guidance I seek to identify my mistakes and better understand the lesson"

<sup>2</sup> The codes in the parenthesis indicate: the code letter of the student or the tutor, the code number of question or/and sub – question of the relevant tool, the research tool: questionnaires ('before' or 'after' the implementation of the method), critical reflection (cr. refl.), the date on which the data was collected through the observation sheet.

(E/H/before). Indeed, M has difficulty understanding the terminology of the lesson recorded in her supervisor's notes: "She did not understand what "fetal life community" is. She is trying to say in her own words what 'social education' is and it is difficult. She asks what the "spirit of utility" is (M/18-05-2018).

Having Greek as a mother tongue, **Ath** connects her difficulties in writing with previous modes of expression: "The writing style was difficult for me because I had to change it, that is, not write high school reports as I wrote" (Ath./B.1.2). She also points out that she has difficulties in understanding the scientific discourse: "In some aspects it is quite scientific, some points are not explained" (Ath/B.2/B.2.1/before). So, she expects the tutor to guide her, find her mistakes and point them out, help her understand some things she has forgotten (Ath/H/before). From her point of view, the supervisor notes that in the tutor's question "how do you plan your reading?" she writes to her what she can't do and how she studies. She said: "I have difficulty concentrating and get easily distracted" (Ath/18-11-2018).

Students had also difficulties related to the study and its organization. These are transversal skills, essential for any subject, the absence of which impedes smooth study and success in studies. "I haven't learned how to read [...], understand what I'm reading," **P** admits (B.1.2/H), adding, after the end of the tutoring meetings: "My tutoring experience has helped me to correct my mistakes and find solutions in the way I study (cr. refl. A/after). That's why I made great progress in the way I learn". His awareness is also confirmed by the supervisor's observation: "He leaves any points he does not know and goes on (test). He doesn't follow the test instructions; he jumps from one to the other. He does not want to do the rest of the test" (P/01-12-2018).

From his point of view, **X**, who has "difficulty organizing the lesson" (X/C/before), argues that "during tutoring we discovered new ways of solving problems. I realized my mistakes and changed my strategy" (cr. refl.B/after). That states the knowledge of his obstacle, how he overcame it and that he acquired metacognitive skill through tutoring: "I find out that I better understand my thinking" (X/K.1/after).

He is not the only student to encounter such difficulties. **MS** also announces: "I find it difficult to organize my reading and my time to read", "I never had a specific schedule for my studying, so I don't have it now that I need it", "I have a hard time putting my thoughts in order and transfer them to paper "(MS/C/C1/B.1.2/ before). As his other classmates, he has specific expectations from tutoring: "I expect it to help me with my expression and to create a program and a system with which I will be able to fix my weaknesses" (MS/H/before).

**M**'s statements are similar and revealing: "I do not organize my notes properly so I get confused", "I made almost no effort to organize my notes before tutoring", "Tutoring seemed very useful, it helped me discover my difficulties and the mistakes I made in organizing my notes. The tutor helped me to discover and adopt a new way of studying" (M /C1/E/cr.refl. A/after).

### **3.2. Tutors Talk about the Difficulties of Their Students**

What do tutors say about their students' difficulties? In this question there is a convergence of views (see Table 2). A more comprehensive picture of students from their tutors helps to better understand the project, as a result of their first meeting with them in order to better adapt their tutoring. Each student is a special case that needs a personalized approach, based on his/her needs and personality. For example, **Mat** mentions about **P** that "he has a brother student in Pedagogical Department. His need not to differ from him [...] leads him to try harder, "He does not aim to acquire scientific knowledge, but to pass the course" and that he considered her "a step to succeed" (Mat/D/Za/before/cr. refl. B). **P**'s motivation does not erase his learning difficulties, which make him very dependent on the tutor: "He has an obsessive behavior, has no confidence in anything related to the courses and he recognizes that he will always need help in this area and he does not hesitate to ask for it even for wrong things "(Mat/R/cr. refl.).

The tutor **E** says for **X**, a Turkish native speaker student that "he attended a minority elementary school at the beginning of his education [...], his parents do not live [...] and he is forced to work for a living. She concludes that he "needs to believe in his abilities and dedicate himself to the study of his course"(E/D/Hb/ before). This picture is complemented by the tutor of the first cycle: "He is Turkish-speaking, raised in a family that was pressuring him to pursue Turkish education. He chose Greek education on his own. Many of the gaps in writing and spelling are due to this" (A/D/ before).



The socio-cultural profile of the Turkish native speaker student **G** is also presented by the tutor, highlighting particular aspects that would assist her in the supportive learning process: “She is a 22-year-old student [...], belongs to the Turkish-speaking population. [...]. Her family is extensive and they work at her grandfather's tobacco fields (D/D/before).

The range of difficulties and particular personal conditions students face is extremely wide and it is a challenge for postgraduate students who are committed to help them. All students have a specific goal, success in their studies, but not all have the same cognitive, social and cultural profile. With the help of the answers of tutors to the Questionnaires (before, after) and “Critical Reflection”, Table 2 can be read fully as their understanding of the diversity of students' socio-cultural profile may offer another perspective and explain their difficulties. Tutors perceive “Subject/Science” as their major difficulty, with terminology and content hindering them, while ranking “Language” and “Course Study” in second and third place. Last is only one students' negative mental state.

**Table 2.** Thematic analysis: Tutors’ speech on students' difficulties

The numbers in the brackets refer to the frequency of the category in the tutors’ speech.

Categories	Sub-categories	Topics
Special learning needs (1)	Skills Strategies	Dyslexia, Moderate reading capacity Lack (resolving difficulties: unknown words, dictionary)
Subject/ Science (6)	Content Terminology	Ignorance, Lack of previous knowledge Confusion of concepts, Understanding, Timing of events
Language (5)	Oral Written	Limited Vocabulary Grammar (syntax, spelling, expression)
Student’s mental state (1)	Negative	Bad mood, Fatigue
Course study (4)	Organization	Notes, Reading

**P**'s difficulty in the subject also caused a difficulty in transmitting the knowledge to **Mat**, who had no specialized knowledge in Special Education: “I realized that he was completely ignorant of the subject and this made my work difficult, since all of it was unknown” [Mat/A/cr. refl.]. More specifically, **Mat** gives an accurate picture of **P**, saying that he has dyslexia - omitting or replacing letters in reading - moderate reading capacity, incomplete vocabulary for his age and no scientific terms. He has not developed problem-solving strategies [unknown words-dictionary], he correlates well-known concepts, he does not know the basics of the course, and he is not assisted by the use of computers [Mat/before].

**An**'s answers to questions about the difficulties of her tutee **M** in the first tutoring cycle are limited to the lack of organization of her notes, "her studying for theoretical lessons" (An/A/ before), the expression, "using scientific speech" and generally not being "serious" (An/H/before). After completing the course, she notes that **M** "can now organize her own notes [...], has fully understood the content of the course [...]" and "she has acquired the skill [...] to express the knowledge she has acquired in writing" (An/B.1/C.1/after), an assessment showing effective support to her tutee.

For tutor **D**, the Turkish native speaker tutee **G** faces difficulties in "understanding certain concepts as well as in the temporal sequence of events", while she admits that "there are parts of the material she understands and manages and parts that are completely incomprehensible to her" [D/A/Hb/before]. In the second cycle, **D** supports the student **E** who "has enough knowledge and skills. Her questions are targeted, she is aware of her weaknesses" (D/A/before). Upon completing her tutoring, **D** estimates that her student understood the knowledge "she wished to understand, because in many aspects of cooperation she was self-correcting [...], while "she was initially able to verbally express the basic meaning of the question and express it in writing as well" (D/B.1/C.1).

**Ath**, **X**'s tutor, says that his difficulties focus on the content of knowledge: "He has confused some concepts in the *Education Sciences* that he wants to simplify to fully understand them" and "he thought that the research methods were the *Education Sciences*" (Ath/Z/before/B1/after). Finally, **M** makes one reference to the students' personal speech for his mental state, which results in the partial reversal of the design of her

teaching intervention: "The fatigue and the bad mood of the student resulted in him refusing to do the comprehension and recapitulation exercises, reversing the design" (M/Hb/after).

There seems to be some progress in the tutors' efforts to address the difficulties of their students. The tutors state that their students have difficulties in the subject (6/8), language (5/8) and the course study (4/5). During the first meeting and in the tutoring course, they identified the difficulties and attempted to work them out, as they point out in both the 'Critical Reflection' and the Questionnaire they completed after the meetings.

### 3.3. Analysis of the Supervisor and Tutors Talk about Dealing with Students' Difficulties

What did the supervisor notice about the students' difficulties handling and what did the tutors report? What categories of difficulties arise from analyzing the supervisor's notes? The notes from the supervisor's observations highlight two categories of difficulties that are related both to the teaching itself and the subject/science. In particular, the difficulties relate to the methodological support of the student, the way in which the tutor provides guidance, clarifies the meanings of the subject, suggests actions for material use, proposes focus points and explains scientific concepts difficult to understand. These difficulties mainly explain the supervisor's twenty-seven interventions in both the lesson and the internship.

Indeed, tutors did not have teaching experience and were not -as proven- the most proficient in the subject they had to teach. So they encountered obstacles and the supervisor took over the role of the tutor for the tutoring student and the student. She provided methodological guidance, solved cognitive content questions or redefined terms and concepts misunderstood by tutors. She also supervised the smooth flow of communication between the couples, while at the same time she pointed out their verbal and non-verbal behaviors. In other words, she was "the guarantor of learning [and had] the responsibility of the teaching use of the tutoring interaction" (Marchive, 2008, p. 92).

In general, there is convergence of the supervisor's observations with the responses of the tutors regarding the dealing of tutees' difficulties: using multiple subject study techniques, interactive support for the development of the subject, various written exercises and inspirational interventions aimed at rewarding the effort. At the same time, there are ways of coping with difficulties that are not common. For example, the use of technology by the supervisor or the joint determination of how difficulties are handled or the student's timetable (Table 3).

**Table 3.** Ways to deal with students' difficulties: supervisor's and tutor's speech

Categories of difficulties: T: teaching; M: method; S: subject/science

Supervisor's speech	Tutor's speech
Course study techniques (underlines, subheadings, colored markers, keywords, diagrams, spoken and written meaning "in your own words"). <b>T-M</b>	Questions / Answers, Examples, Discussion, Meaning processing, Repetitions, Reminders, Explanations of terms, Knowledge testing. <b>S-T</b>
Examples, Questions / Answers, Discussion, terms' explanations, Clarifications, Meaning processing, Incomplete answers, Reminders, Knowledge checking, Error correction, Repetitions. <b>S-T</b>	Target and evaluation of each session. <b>T</b> Course study techniques (highlights, subheadings, colored markers, keywords, diagrams). <b>T-M</b>
Methodological guidelines for the organization of study and personal time besides tutoring. <b>M</b>	Written exercises, Quiz, Multiple choice tests. <b>T</b> Adoption of study rules. <b>M</b>
Motivating, Encouraging, Validating and rewarding effort and progress. <b>T</b>	Encouraging, Rewarding effort and progress. <b>T</b> Preparation and study of the subject by the tutor. <b>S</b>
Allowing time for study and exercise. <b>T</b>	Adjusting help to students' needs and level. <b>T</b>
Written exercises, Quiz, Multiple choice tests. <b>T</b>	Determine jointly how to deal with difficulties and the timetable. <b>M</b>
Formative assessment practices. <b>T</b>	
Use of digital technology (dictionary, writing). <b>T</b>	

### 3.4. Tutors Talk about Their Own Difficulties and How They Dealt With Them

Not only tutees had difficulties, but also the tutors themselves. The 'Teaching' category was the majority and the 'Subject' followed. In both cases, two subcategories emerged: method and lack of experience. Specifically, tutors admit that they could not always balance between classical instruction and tutoring, more personalized and adapted to the needs and difficulties of the learner. They also note that they did not have prior teaching experience to manage their syllabus requirements.

Indicatively, **E** reports adaptation to his rhythm (E/X/cr. refl.), "lack of teaching experience", "stress response to tutoring requirements", and "confusion between tutoring and teaching" (E/MA/Ha./Hb). She dealt with these difficulties based on "[her] personal experience and theory of tutoring", "very good studying of the theory of tutoring", "very good preparation, studying the material", the "calm and lack of (seemingly) student's anxiety", that helped her "overcome any difficulties and [her] mistakes" (E/cr. refl. A).

**Ath's** colleague had no problem with teaching, but with limited time, stating: "The most important difficulty was handling time in terms of matter and the individual weaknesses that arose each time and that we had to deal with methodically and purposefully». How did she deal with them? She says in her "Critical Reflection": "I have prepared and studied the subject very well so that I can address any questions and difficulties. I had to inspire confidence and I would only do this through the best knowledge of the subject" (Ath/X/cr. refl. A). This tutor recognizes her deficiencies in the subject and covers them in order to respond effectively to the needs and difficulties of the student. So, she confirms her former colleague.

Indeed, the "subject" was demanding for tutors, as **M** admits: 'A lesson with difficulty in understanding, preventing me from conveying it in simple words' (M/LM/Mb/before). Finally, **An** states that: "Sometimes I did a lesson rather than tutoring". Also, she had a "personal difficulty, a teaching difficulty" (An/M/Ha/after), about which she states: "after a supervisor's remark, I understood the mistake and I corrected it" (An/MHc).

Table 4 shows the tutor-student pairs (T/S), the tutors' difficulties and how themselves and the supervisor coped with them.

'Teaching', 'methods' and the relative 'lack of experience' are the obstacles that the vast majority of tutors encounter. It is an expected result given the lack of such training. In general, in order to overcome it, they study the subject which they are committed to support the student, in order to compensate for the teaching gaps, make adjustments to it, so that it is accessible to him. At the same time, they make adjustments and settings regarding student's behavior, trying to balance the teaching relationship for the benefit of the student. There are also difficulties associated with the subject, as it sometimes includes theoretical concepts difficult to understand and its volume is largely compared to the limited time of meetings. Last but not least, the student himself caused difficulties to tutors, due to his very special cognitive and personal profile.

On the supervisor's side, her observations point out almost equally the weaknesses in the subject and the methodology. Specifically, scientific concepts were difficult for tutors to learn, sometimes giving incorrect explanations to students, while at the same time their methodological approaches tended to transmit rather than seek and build on knowledge through their mediation. There is a clear convergence in the speech of the tutors and the supervisor, without implying that the remaining recorded difficulties are being deleted.

Five of six tutors report various teaching-style difficulties that obstructed their work: lack of experience, method, pace of process. "Many times I found it difficult to simplify concepts and theories in order to understand them without misunderstanding them," admits **Mat** (cr. refl.), who supported a student with diagnosed learning difficulties, a situation that required more effort, attention, for an uncertain outcome. **E** also had similar difficulties saying: "I found it difficult to manage the volume of course material". She tried to overcome this difficulty by persuading "the student that he had to deal with his problems first, learn some general rules and methods of studying" (E/X/H.1.a/c). But it was not the only obstacle: "I had a hard time adjusting to his rhythm" (E/X/ cr. refl.), setting one of the key aspects of tutoring: responding to the student's particularities and needs.

**Table 4.** Ways to deal with tutors' difficulties: tutor's and supervisor's speech  
The numbers in parentheses refer to the frequency of the supervisor's interventions.

T/S	Tutors' difficulties	Tutor's dealing	Interventions of the supervisor to the tutor
Mat/P	Tutee's knowledge Teaching (methods) Subject Student specialties (Fatigue, lack of focus)	Course notes' study, Supervisor's reminder for tutoring Interpretation in the students' "language" Adapt the behavior to the needs of the student	Technical advice, Explanation (1) Explanations for a subject (2)
E/MS	Teaching (methods, experience) Tutor's Mental state	Theory / Material study, Lesson preparation	Suggestion on searching for an answer online
E/X (internship)	Teaching (experience, pace) Dealing with problems. Subject (volume) Overestimating student's competence.	Student's calmness and lack of anxiety Attempting to persuade the student to address his / her problems regarding study rules and methods Adaptation of lesson to student's level Enforcement of opinion (material non-completion)	Give an example (3) Methodological suggestions (2)
D/G	Teaching (methods)		Notes on: helping in understanding the concept (≠ answer), Methodological and technical support and related proposals (5) Suggestions for 'knowledge' and 'methodology'(5)
D/E (internship)	Teaching (experience, methods) Time management Subject (demanding)		
An/M	Teaching (methods), Subject	Labeling of the supervisor	Labeling for help in understanding (≠ answer) Methodological suggestion Explanation of not comprehended concepts (5) Highlights on subject (2)
An/Ath (internship)	Subject	Study of the subject	
Ath/X	Time (Existence) Questions + Student difficulties	Preparation + Study of the subject	
M/LM	Teaching (experience, doubts), student's mental state.	Relaxed teaching rates	Subject (explanation of not comprehended scientific concept) (2)

**M** in turn acknowledges "doubts and lack of self-esteem/confidence that the design met the student's needs" and adds: "I had several demands and expectations that did not meet the student's level and wishes". What did he do; He implemented the "course at a slower pace" and insisted on "clarifying terms" (M/LM/Z/H.a.H.c). These actions are generally confirmed by the supervisor's field observations.

What does **D** say about it? "Tutoring was an area I had never come across as a support method". "The difficulty was mainly in managing time". "Every time we encountered a difficult part, I sought to stop the process and focus on something else" (D/E/Z/H.a.H.c). From her side, the supervisor notes another type of difficulty for **D**, as she sometimes felt insecure about the subject before answering her student's question: "She consults her notes. She tells her that this is what she was told in the beginning", while" she always looks at her notes "(D/18-11-2018).

#### 4. Discussion and Conclusions

The present study revealed many categories of difficulties of the undergraduate students (tutees) that were faced with the peer tutoring method in the context of DESEC and also the difficulties that the post graduate students (tutors) faced while implementing it. The most important difficulties for the former are the use and comprehension of the written and oral language, and consequently the scientific language used in the university textbooks, especially for those whose mother tongue is different from the course official language and the student with special needs. Their answers also highlighted the difficulty of organizing their study, without neglecting the obstacles that have to do with their mental state. So, the range of difficulties was extensive and complex; mostly in cognitive, linguistic and organizational level. The results of this study showed that the undergraduate students were benefited from the method on the above and support the relevant literature about peer tutoring in the University context, which indicates that the method improves organizational and other generic skills of the students', enhances skills in the cognitive domain (Stigmar, 2016) and affects positively their academic performance (Arco-Tirado, Fernández-Martín, & Hervás-Torres, 2019). Topping (2005) describes some basic elements that make peer assisted learning to be an effective strategy: a) the organizational or structural features of the learning interaction (e.g. increased time on task, elaboration of goals and plans, individualization of learning and immediacy of feedback), b) the fact that, cognitively, it involves conflict, challenge, support and scaffolding, c) the helper seeks to modulate the information processing demands upon the learner, d) it develops, through practice, communication skills because they are prerequisites, e) the affective component between the pair is very powerful and promotes accountability to each other. Similarly, Cohen (1986) describes the components of peer tutoring that make it work and promote learning for both the tutees and the tutors: a) the individualization which maximizes the active participation of the tutee and the tutor, b) the similarity of the model (tutor) to the viewer (tutee) and the latter's perception that the model has a relatively high status, two components that increase modeling effects, c) motivational factors that can be connected with the method (tangible, social, moral and academic reinforcements), d) the similarity – closeness of the peer as a teacher which offers great advantages (effective communication, appreciation of the tutees cognitive framework, same peer language and gesture repertoire).

At the same time, there were also personal and other difficulties for the postgraduate students - tutors themselves: teaching and related to the science/course difficulties, but also difficulties related to the learners, in terms of their abilities and their mental state and mood. In relation to the first two of the above, the possible weakness of tutors in teaching the subject's concepts is also acknowledged in literature as the main disadvantage of peer tutoring (Clarence, 2016). It is clear that they are experts neither in the subject nor in Didactics and being non expert tutors. However, the results showed that they came up with many different tools and techniques in order to manage the difficulties. They looked for ways, made mistakes, tried techniques, found the best for their students. As Baudrit indicates, the non expert tutors act "with successive adjustments, with trial and error, for the quality of assistance provided" (Baudrit, 1999, p. 28). On the other hand Topping (2000) argues that tutoring has its dangers because while the tutors may offer much more quantity of individual support than the professional teacher the quality is not guaranteed. For example they may reinforce mistakes, they might become impatient and tell the right answer to the tutee or tell something incorrect etc. (Topping, 2000). The supervisor's role was determinant in our case in order to handle such situations through the suitable interventions. Relevant literature indicates that teachers who supervise tutors can intervene in case of need, but without greatly limiting the autonomy of their students, because it is essential for the success of the tutoring activities (Centre étudiant de soutien à la réussite des Services aux étudiants - CÉSAR-, 2018).

Generally, despite the shortcomings at all levels, since the tutors were not selected on the basis of course performance or competence criteria, they showed a very positive disposition for help. They also devoted energy and time to preparation, adaptability and flexibility in their effort to meet the diverse needs of their fellow students, most of which were not at all easy to respond to. All responded to their task successfully, despite the difficulties of time, the lack of relevant experience and systematic training. Each supportive intervention was unique and no tutor was enclosed in standardized interaction patterns, as each case of assisted student was unique and special.

Not being experts, tutors have consistently guided and assisted their fellow students, in the narrow timeframe of the course, sometimes bypassing personalized forms of support for the benefit of classical

teaching. These were unconscious and non-repetitive actions of the learners due to the supervision of the sessions by the supervisor. They gave students space and time for study, while in some cases cooperation was developed between them, especially in 'easy' cases. In all couples, the student's role was not minimized, as they took some of the responsibility for their learning, while in the 'difficult' cases – non-native speakers and the student with learning difficulties - the tutor's role seemed to be more directive. These are indications that need further analysis for future research, as there appear to be differences in the supportive interventions of the tutors depending on the student's cognitive profile.

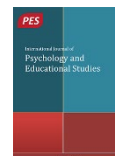
The non-generic, but extremely encouraging results of the peer tutoring application in DESEC, give the hope that this method could complement and substantially enhance the classical academic teaching by educating students as tutors, "further personalizing teaching, facilitating the student's personal work, taking into account the difficulties of each other" (Baudrit, 2007, p. 146).

Without being considered a solution for everything, with the institutionalization of peer tutoring, the tutors will be able to help their fellow students who have difficulty in courses, both cognitively and methodologically. The University will approach the student's evaluation with socio-constructive logic, helping offsets in social, cultural or other deficits, limiting the failure and abandonment of their studies and offering quality education.

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## Secondary School Students' Identity and Citizenship Perceptions\*

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### ABSTRACT

The aim of the research is to determine the secondary school students' perceptions of identity and citizenship concepts. The research is designed in a qualitative model. The study group consists of 30 5th, 6th and 7th grade students at a public secondary school in the province of Kastamonu. In the research, 5th, 6th and 7th graders were asked to paint on identity and citizenship concepts and to indicate what they want to tell with the pictures they drew. In the research, the pictures and views of the students were taken through content analysis. Secondary school students drew the picture of identity card for identity concept and pictures of "identity card" and "social values" related to citizenship concept. With the pictures they drew, the students stated that identity is "a document containing personal information" and citizenship means "adopting social values" and "awareness of the individual rights, duty and responsibilities".

#### Keywords:

Identity, citizenship, secondary school, student.

### 1. Introduction

The main objective of Social Studies course, which is taught in primary and secondary schools, is to raise good and socially beneficial individuals. This course contributes to the individuals in a society in order to create a common world and acquire a social memory. Social Studies course introduces the region where we live and all its people. It also tells about the common past and the present of the society, and ensures to raise individuals with the same social consciousness for future. Thus, it is highly important in terms of establishing a collective identity. In the development of a healthy and strong society, individuals who are aware of their responsibilities and have the sense of belonging to a common identity should exist. Individuals are ensured to acquire all these information, skill and values related to social life through Social Studies. Therefore, the main aim of Social Studies course at primary and secondary school level is to raise good and effective citizens. In this regard, identity and citizenship are considered to be interrelated concepts. In this part of the study, identity and citizenship will be reviewed.

Identity is conceptually regarded as the answer to the questions of "Who am I?" or "Who are you?". The answer is at both the individual and social level (Vignoles, 2017). In the literature, some views suggest that identity concept arises from individuality. Accordingly, giving individuality prominence since the modern ages is an important factor which reveals the concept of identity (Çelik, 2012). Also, another view introduces that identity is shaped based on individual experiences; therefore, it is the characteristics that distinguish individuals or societies from others (Asiliskender, 2004). However, some other views in the literature indicate that identity develops with the social, environmental and cultural effects. According to this, identity is defined as a phenomenon revealing with the effect of modernism, postmodernism, globalization, religion,

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language, government, ethnicity and similar factors on individuals (Dalbay and Avcı, 2018). Concerning this view, identity is seen as a result of the natural flow of life and it is not possible to regard identity independent from culture (Arslantaş, 2008). It represents the belief, attitude and values pertaining to the society (Yıldız, 2007). In addition, the identity of individual determines what to do or how to act, and this can be considered as a sign of social effect on identity (Oyserman, Elmore and Smith, 2012). The role of identity in understanding modern life is also a result of the social effect on identity (Abdelal, 2006). Thus, identity is said to be conceptualized through collective features rather than individual characteristics (Göktolga, 2013). In the literature, identity is also regarded as the common reflection of both individual and social effects. Although it is actually accepted as a reflection of subjective experiences of individuals, identity is a concept which can differentiate and also transform with the social, cultural and economic dynamics of the society in which individuals live (Aşkın, 2007; Armağan, 2013; Yıldız, 2007). Considering all these definitions and explanations, identity is seen as a concept involving different meanings.

Citizenship is a concept that refers to the rights and responsibilities of individuals sharing the same society (Marshall, 1950). Turkish Language Association (2020) defines citizenship by referring to everyone who is loyal to Turkish State through the bond of citizenship. To Rapoport (2009), citizenship indicates the responsibilities that an individual has to fulfill towards his state and the society to which he belongs, and the rights which he must benefit from. Kepenekçi (2008) defines citizenship as the nationality which ensures the individual to be bound to a particular state. According to Lawson and Scott (2002), citizenship is loyalty to the state and endeavor to create a basic identity. Hablemitoğlu and Özmete (2012) explain citizenship by referring to good individuals who have achieved social harmony and comprehended the sense of responsibility to do their part in the society. Therefore, they state that the continuance of societies can only be ensured by people in harmony with that society and aware of their social rights and responsibilities. Citizenship is vital for nation states adopting the social state approach. Indeed, those who are unaware of the requirement for being a citizen (Tansi, 2010) are condemned to disappear under the global world conditions. In this sense, citizenship is a socio-political membership that sets out the right and responsibilities of individuals or social groups for their common interests (Turner and Hamilton, 1998).

In the literature, there are studies dealing with identity and citizenship within the context of Social Studies course. Thompson (2004), in his study on identity concept and Social Studies curriculum, introduces the role of education systems in raising good citizens. Accordingly, this role can be achieved by identity to be established through Social Studies course. In another study, Zajda, Daun and Saha (2009) draw attention to identity and citizenship education in terms of nation-building. For Journell (2011), the transfer of traditions is ensured with Social Studies course, and thus, citizenship education and the American identity can be gained. Pamuk and Alabaş (2016) state that citizenship is defined as national identity and nationality in Social Studies Curricula. In this respect, they associate identity and citizenship concepts. İbret and Karasu-Avcı (2017) and Karasu-Avcı and İbret (2019) emphasize both the need for developing identity in order to raise good and effective citizens through Social Studies course and the importance of developing identity for creating the citizenship profile. One of the themes published by NCSS (1992) in relation to Social Studies course is "Individual Development and Identity". In this theme, it is envisaged to deal with various forms of human behavior, understanding of the relationship among the identities developed by social rules and social processes affecting the formation of identity. It is stated that the identity of the individual is shaped through culture, groups, institutions and experiences. Pointing out the identity concept in the lands where Social Studies course emerged reveals the role of identity concept in raising good and effective citizens.

Considering the main objective of education systems to raise citizens, identity and citizenship are thought to be interrelated and complementary concepts. Individuals have the ability to keep up with the rapidly changing and emerging world in the 21st century. And, this ability also has parallels with gaining a healthy identity and awareness on their right and responsibility thanks to their citizenship consciousness (Türkcan and Bozkurt, 2015). Except the study of Türkcan and Bozkurt (2015) on the elementary school students' perceptions of identity, culture and civic, no study is encountered in the literature. Seeing that the main purpose of the emergence of Social Studies course is to raise good and effective citizen, it is important to determine the secondary school students' perceptions of identity and citizenship. In this context, the problem statement of this study is:

What are the secondary school students' perceptions of identity and citizenship?

Sub-Problems:

1. What are the secondary school students' perceptions of identity?
2. What are the secondary school students' perceptions of citizenship?

## **2. Method**

### **2.1. Research Model**

Case study, as a qualitative research model, was used. Case study is the research model which allows to investigate multiple cases in-depth and in an holistic approach. More than one data collection tool is used in data collection (Yıldırım and Şimşek, 2016). In this research, in order to determine students' perceptions of identity and citizenship, they were first asked to draw pictures for these concepts. Then, their opinions on the pictures they drew were received. Therefore, case study was used in the research. This research is in the form of an explanatory case study of the case study types. Descriptive case study about a situation is the type where one or two situations are used to provide information (Aytaçlı, 2012).

### **2.2. Study Group**

The study group of the research consists of 30 5th, 6th and 7th grade students at a secondary school in Pınarbaşı district of Kastamonu province during the fall semester of the academic year 2019-2020. 12 5th graders, 6 6th graders and 12 7th graders participated in the research. Volunteering was taken as basis for the participation of students in the research. Therefore, the sample group of the research was determined as convenience sampling. Convenience sampling is the type in which the researcher selects the participants easy to reach (Dawson and Trapp, 2001). The relevant school and students were preferred in the study since they were the easiest samples to reach.

### **2.3. Data Collection Tool**

In this research, the 5th, 6th and 7th grade students were asked to draw pictures for identity and citizenship concepts. Firstly, students were allowed one class hour (40 minutes) to draw their pictures related to identity concept. Within the same day, a convenient time was found for the 5th, 6th and 7th graders and they were then asked to fill in the structured interview form in order to state what they wanted to describe with the pictures they drew. A 20-minute time period was given the students to fill in the form. The same procedure was again applied in the following week by the researcher for citizenship concept.

### **2.4. Data Analysis**

In the research, the pictures and structured interview forms were separately analyzed. Data obtained from the students was classified according to the grade levels and each of them was nicknamed (e.g. 5th grade-Esra, 6th grade-Emre, 7th grade-Ayşe). Then, the pictures were separated according to the grade levels and coded. Data from the structured interview forms was analyzed by content analysis. Content analysis is the type of analysis used to determine the presence of research subject consisting of text or texts by words, phrases or sentences. Data was first coded. The coded data was evaluated in terms of their relationship and similarities, and the categories were reached (Büyüköztürk, Kılıç Çakmak, Akgün, Karadeniz and Demirel, 2012).

### **2.5. Validity and Reliability**

The research reliability was proved by analyst triangulation. Analyst triangulation was defined as the process in which data is separately analyzed by two or more researchers and their findings are compared (Patton, 2014). In this research, one more researcher analyzed the data independently and the findings obtained by the two researchers were compared. The reliability of the research was achieved by reaching a consensus in case of dissenting. Based on the formula designed by Miles and Huberman (1994), the Percent Agreement was calculated as  $P=0,98$ . For the research validity, the obtained findings were included in the study in a systematic way to be easily understood by readers and direct quotations from students were included.

## **3. Findings**

In this part of the study, findings obtained from the research and relevant interpretations are included.

### 3.1. Findings for the 1st Sub-problem

Findings for the sub-problem of "What are the secondary school students' perceptions of identity?" are presented in Table 1 and Table 2.

**Table 1.** Perceptions of secondary school students about the concept of identity

Categories	Sub Categories	5th grade	6th grade	7th grade	Total	%
		f	f	f		
Identity card		12	6	10	28	84,8
	Civil Registry	1	-	1	2	
Official institutions	District	1	-	1	2	15,1
	Governorship					
	Ministry	1	-	-	1	
Total		15	6	12	33	100

When Table 1 was examined, it was seen that the students mostly drew the picture of identity card (f=27, %=84,8) for the concept. In addition, 5 of the students (f=5, %=15,1) drew the pictures related to official institutions such as civil registry, district governorship, ministry. Considering the pictures according to grade level, most of the 5th, 6th and 7th graders drew the picture of identity card. Some of the 5th graders (f=3) and 7th graders (f=2) perceived identity as an official institution. Accordingly, most of secondary school students perceive the concept as identity card and official institutions.

After the students drew pictures for the concept, they stated what they wanted to describe with that picture in the structured interview form. The student opinions relevant to their pictures are presented in Table 2.

**Table 2.** Opinions of secondary school students about the concept of identity

Categories	Sub Categories	5th grade	6th grade	7th grade	Total	%
		f	f	f		
	To describe who we are	11	5	10	26	
	To keep the information secret	4	-	-	4	
A document containing personal information	To be unique to the person	3	-	1	4	
	To be required to be a citizen	1	1	1	3	
	Being in every individual	-	3	-	3	100
	Necessary in all areas of life	-	-	2	2	
	Preventing confusion in social life	-	1	-	1	
Total		19	10	14	43	100

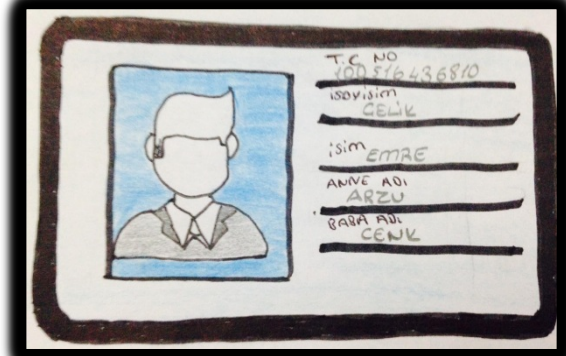
When Table 2 was examined, it was seen that student opinions about their pictures took place under the category of "a document containing personal information" (f=43, %=100). Also, sub-categories were found for the category of "a document containing personal information". Accordingly, students explained the document containing personal information mainly as "to describe who we are" (f=26). That sub-category was followed by the categories of "to keep the information secret" (f=4) and "to be unique to the person" (f=4). Most of the 5th, 6th and 7th graders focused on "to describe who we are" (f=26) regarding the document containing personal information. Based on this, it is possible to say what students try to describe in their pictures for identity is the document which contains personal information.

Sample pictures related to the category obtained from the pictures that students drew for identity are given below.

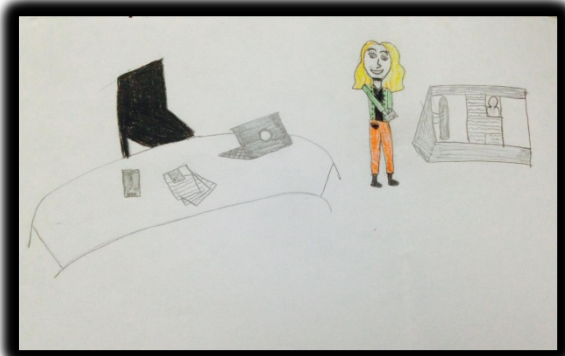
Sample pictures related to the category of "a document containing personal information" for identity:



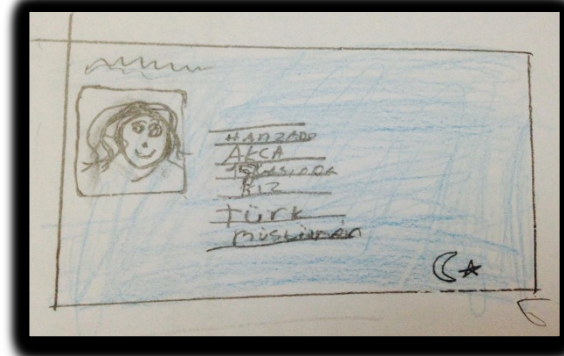
Picture 1: Esra's identity picture (5th grade)



Picture 2: Emre's identity picture (6th grade)



Picture 3: Zeynep's identity picture (7th grade)



Picture 4: Ayşe's identity picture (7th grade)

When the pictures for identity which were drawn by some of the secondary school students (Esra, Emre, Zeynep and Ayşe) are examined, it is seen that Emre and Ayşe illustrated the concept of identity as identity card. With the picture she drew, Esra emphasizes that identity should be kept secret. Zeynep wants to state that identity is necessary in every aspect of life in her picture. It can be interpreted that students' perception of identity is generally related to a concept containing personal information. The opinions expressed by Esra, Emre, Zeynep and Ayşe about the pictures they drew are given below.

Esra "In my picture about identity, I wanted to explain that we must keep our identity secret and not give it to anyone. Because they can steal your identity and commit a crime." Emre "Every individual has an identity. The person without an identity is not called an individual..." Zeynep "With this picture, I wanted to explain that we need to use our identity everywhere." Ayşe "It is possible for a person to vote and get a driver's license after 18 only with the identity."

### 3.2. Findings for the 2nd Sub-problem

Findings for the sub-problem of "What are the secondary school students' perceptions of citizenship?" are presented in Table 3 and Table 4.

Table 3. Perceptions of secondary school students about the concept of citizenship

Categories	5th grade	6th grade	7th grade	Total	%
	f	f	f	f	
Identity card	4	3	5	12	36,3
Social values	6	-	5	11	33,3
Rights, duty and responsibilities	2	3	3	8	24,2
Total	12	6	13	31	100

When Table 3 was examined, it was seen that the students mostly illustrated citizenship concept as identity card ( $f=12$ ,  $\%=36,3$ ), social values ( $f=11$ ,  $\%=33,3$ ) and rights, duty and responsibilities ( $f=8$ ,  $\%=24,2$ ). Considering the pictures according to grade level, citizenship was illustrated as identity card mostly by the 5th graders ( $f=4$ ), identity card and rights, duty and responsibilities mostly by the 6th graders ( $f=4$ ) and identity card ( $f=5$ ) and social values ( $f=5$ ) mostly by the 7th graders. Based on this, the students perceive the concept as identity card, social values and rights, duty and responsibilities.

After the students drew pictures for citizenship concept, they stated what they wanted to describe with their pictures in the structured interview form. The student opinions about their pictures are presented in Table 4.

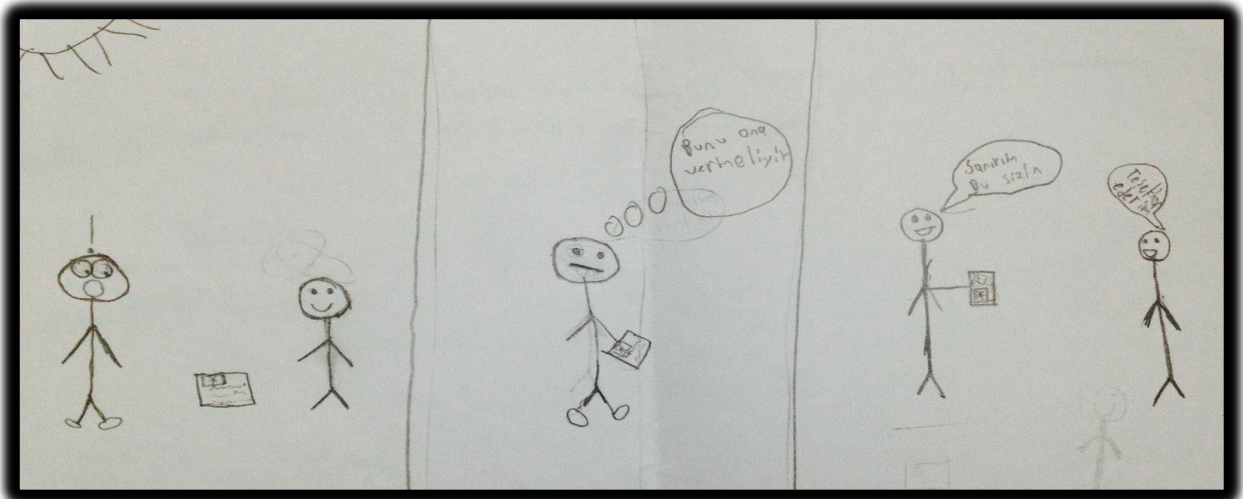
**Table 4.** Opinions of secondary school students about the concept of citizenship

Categories	5th grade	6th grade	7th grade	Total	%		
	f	f	f			f	
To adopt social values	Cooperate	4	-	1	5		
	To be patriotic	1	-	2	3		
	Share	1	-	-	1	12	34,2
	To be fair	1	-	-	1		
	Respect for the National Anthem	-	-	1	1		
Awareness of the individual rights, duty and responsibilities	Responsibility	-	1	-	1		
	Do your duty	-	-	3	3		
	Right to vote and to be elected	-	1	1	2		
	The right to live	-	1	-	1		
	Environmental rights	-	1	-	1	10	28,5
	Human rights	-	1	-	1		
	Get a driver's license	-	-	1	1		
Individual's having an identity	Exercise our rights	-	1	-	1		
		-	4	2	6	6	17,1
The existence of the individual in society	4	1	-	5	5	14,2	
Individual's belonging/being loyal to a country	1	-	1	2	2	5,7	
Total	12	11	12	35	35	100	

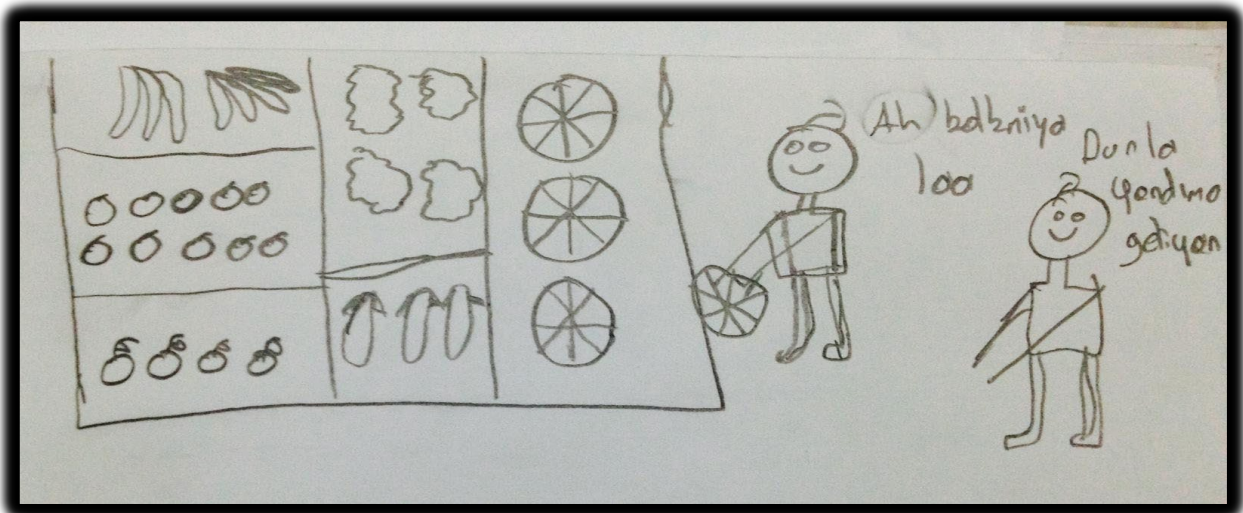
According to Table 4, student opinions about their pictures took place under the categories of "to adopt social values" ( $f=12$ ,  $\%=34,2$ ) and "awareness of the individual rights, duty and responsibilities" ( $f=10$ ,  $\%=28,5$ ), "individual's having an identity" ( $f=6$ ,  $\%=17,1$ ), "the existence of the individual in society" ( $f=5$ ,  $\%=14,2$ ) and "individual's belonging/being loyal to a country" ( $f=2$ ,  $\%=5,7$ ). Students stated that they drew their pictures related to citizenship mainly for the categories of "to adopt social values" ( $f=12$ ,  $\%=34,2$ ) and "awareness of the individual rights, duty and responsibilities" ( $f=10$ ,  $\%=28,5$ ). Considering their opinions according to grade level, the concept was illustrated for the categories of "to adopt social values" mostly by the 5th graders ( $f=7$ ), "awareness of the individual rights, duty and responsibilities" mostly by the 6th graders ( $f=5$ ) and "awareness of the individual rights, duty and responsibilities" mostly by the 7th graders ( $f=10$ ,  $\%=28,5$ ). Therefore, what students try to describe in their pictures is mainly the requirement for individuals to adopt social values and be aware of their rights, duty and responsibilities.

Sample pictures related to the categories obtained from the pictures that students drew for citizenship are given below.

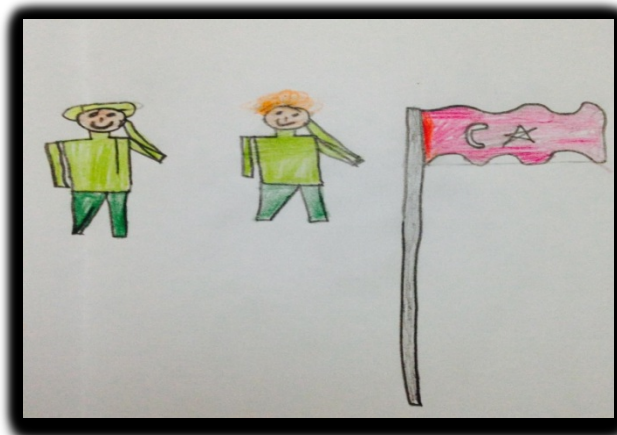
Sample pictures related to the category of "to adopt social values" for citizenship:



Picture 5: Murat's citizenship picture (5th grade)



Picture 6: Ömer's citizenship picture (7th grade)



Picture 7: Furkan's citizenship picture (7th grade)

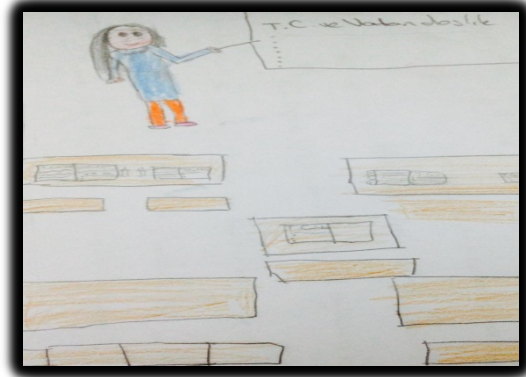
Pictures numbered 5, 6 and 7, drawn by Murat, Ömer and Furkan for citizenship concept, are related to social values. In Picture 5 and 6, respectively, Murat and Ömer related cooperation to citizenship. In Picture 7, Furkan related protecting the country and nation to citizenship. Opinions for the pictures which Murat, Ömer and Furkan drew are given below.

Murat "In this picture, I have tried to explain that humanity is not dead and helping someone who have lost his identity card." Ömer "Citizenship is to help people who are in need of help." Furkan "To protect the country, to wave the flag is a civic duty for all men and women."

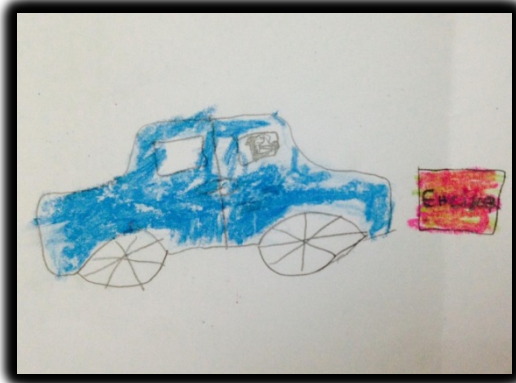
Sample pictures related to the category of "awareness of the individual rights, duty and responsibilities" for citizenship:



Picture 8: Yunus's citizenship picture (6th grade)



Picture 9: Emine's citizenship picture (7th grade)

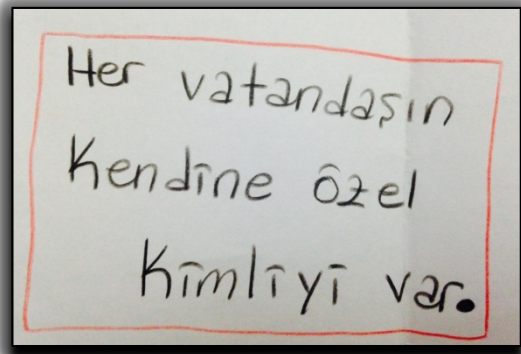


Picture 10: Seda's citizenship picture (7th grade)

Pictures numbered 8, 9 and 10, drawn by Yunus, Emine and Seda for citizenship concept, are related to the rights, duties and responsibilities of individuals. In Picture 8 and 9, respectively, Yunus related the right to elect and be elected and Emine related the right to education to citizenship. In Picture 10, Seda regards getting a driver's license as an individual right and relates it to citizenship. Opinions for the pictures which Yunus, Emine and Seda drew are given below.

Yunus "Everyone is a citizen. Everyone has the right to vote. Nobody can prevent this." Emine "Citizenship takes its place in every aspect of our lives. In primary, secondary, high school and university... At all ages, we are citizens." Seda "Everyone who is citizen, for example, can get a driver's license."

Sample pictures related to the category of "individual's having an identity" for citizenship:



Picture 11: Nida's citizenship picture (6th grade)

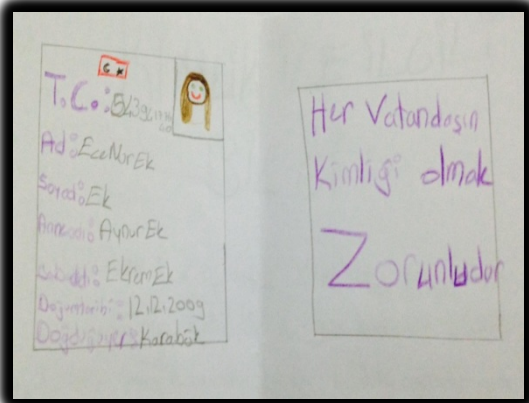


Picture 12: Mert's citizenship picture (6th grade)

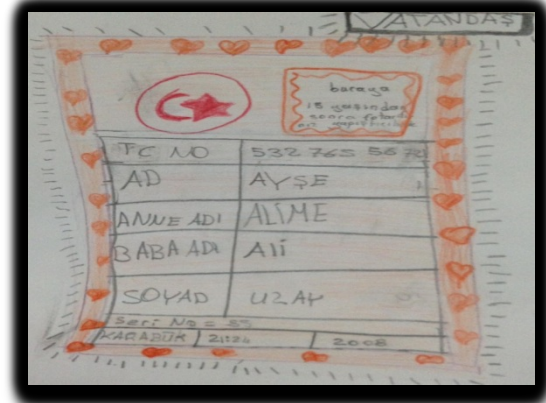
In Picture 11 and 12, the 6th grader Nida's and Mert's pictures were included. Nida, in her picture for citizenship, indicates that she has knowledge of an identity which is required for every citizen to have. Mert tries to illustrate citizenship concept by drawing an identity card. Accordingly, Nida and Mert relate citizenship to have an identity card. Opinions for the pictures which Nida and Mert drew are given below.

Nida "Every citizen has an identity. Every person's identity is unique. Nobody can look at the other's identity by force." Mert "Identity is an important card that contains personal information. Every citizen has it."

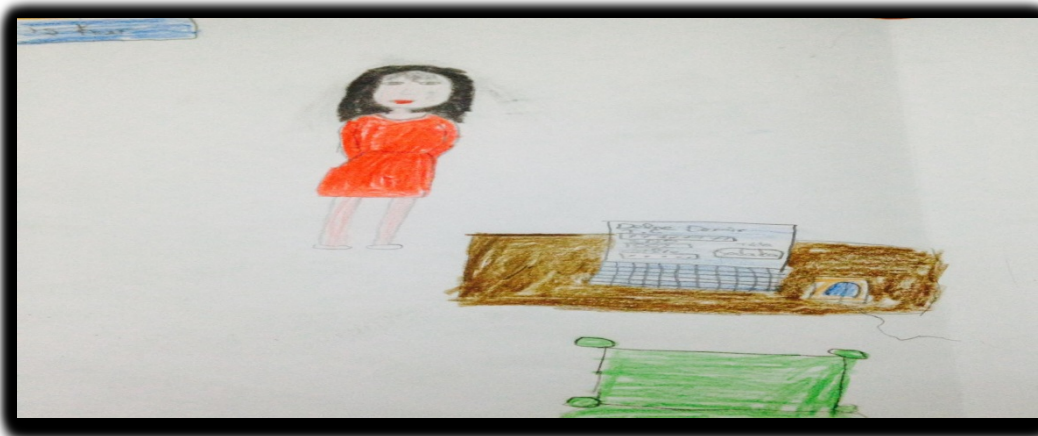
Sample pictures related to the category of "the existence of the individual in society" for citizenship:



Picture 11: Rabia's citizenship picture (5th grade)



Picture 12: Ceylan's citizenship picture (6th grade)



Picture 13: Feyza's citizenship picture (7th grade)



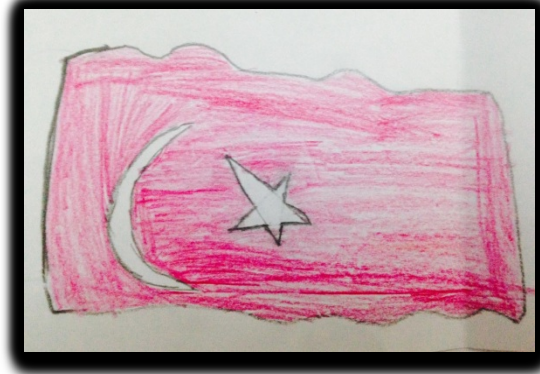
In Picture 11, 12 and 13, the 5th grader Rabia's, 6th grader Ceylan's and 7th grader Feyza's pictures were included. In Picture 11 and 12, respectively, Rabia and Ceylan point out that identity is a must for an individual to exist in the society. In Picture 13, Feyza also emphasizes that identity is a requirement for making a job application. Opinions for the pictures which Rabia, Ceylan and Feyza drew are given below.

Rabia "On our identity cards, our T.R. identity numbers are present. We encounter with this number in every aspect of our lives." Ceylan "Every person has an identity. Identity card is used everywhere. People can get on a bus or plane with this number." Feyza "...Identity and citizenship are everywhere in life. Our T.R. identity numbers and citizenship status are checked while looking for a job..."

Sample pictures related to the category of "individual's belonging/being loyal to a country" for citizenship:



**Picture 14:** Ecem's citizenship picture (5th grade)



**Picture 15:** Ahmet's citizenship picture (7th grade)

In Picture 14 and 15, Ecem's and Ahmet's pictures for citizenship concept were included. Ecem, as a 5th grader, drew a picture to illustrate that an identity document must be issued by the district governorship so that a new born baby can belong to a country. Ecem lives in Pınarbaşı district of Kastamonu province. It is understood from her picture that she also has knowledge of an identity document to be received by applying to the civil registry in the building of district governorship. Ahmet, a 7th grader, while explaining citizenship as belonging/being loyal to a country, described that situation with the picture of Turkish flag. Opinions for the pictures which Ecem and Ahmet drew are given below.

Ecem "People with T.R. identity number are citizens. Everybody needs to have a T.R. identity number. For this reason, we should seek help from official institutions." Ahmet "Country means a flag. Individuals living in the country preserve the flag. So, every individual has a country and its flag."

#### 4. Discussion

Secondary school students' perceptions of identity and citizenship were dealt in the research. Secondary school students drew the picture of identity card and some other pictures related to official institutions for identity concept. Students stated that identity was a document containing personal information with the pictures they drew. In the sub-category of the category "a document containing personal information", students expressed their opinions on identity mostly as "defining who we are". Considering the Social Studies Curriculum 2018, identity concept is seen to be addressed in the learning domain of "Individual and Society". Within this learning domain, the concept is included as identity card. Therefore, this may be the reason why secondary school students mainly perceive identity concept as identity card. In the study carried out by Türkcan and Bozkurt (2015), students mostly drew the picture of identity card for identity concept. They considered the concept in a way to present the features characterizing individuals, such as date of birth, sex, marital status, and etc., during the interviews made with them. Accordingly, the focus on the date of birth, sex and marital status of individuals supports the finding obtained in this research. Based on this finding, identity is perceived as "a document containing personal information." In both studies, students relate identity concept mostly to identity card. This shows that students perceive identity as an individual-specific concept. In the literature, studies addressing that identity consists of individual characteristics (Asiliskender, 2004; Çelik, 2012), and studies indicating that identity is formed through social effects

(Abdelal, 2006; Yıldız, 2007; Oyserman, Elmore and Smith, 2012; Göktolga, 2013; Dalbay and Avcı, 2018) and through both individual and social effects (Aşkın, 2007; Yıldız, 2007; Armağan, 2013) are seen.

For citizenship concept, students illustrated identity card, social values and rights, duty and responsibilities. Students expressed their opinions on their relevant pictures by referring to individual's belonging/being loyal to a country, having an identity, existing in the society, adopting social values and being aware of his rights, duty and responsibilities. In Türkcan and Bozkurt's study (2015), students conceptualized citizenship by focusing on social belonging, values and civic duty. Both in the pictures students drew for citizenship and in the interviews made with them, it was observed that students emphasized the elements symbolizing the national loyalty such as Turkish flag, Atatürk, patriotism. In addition, they underlined helpfulness and love for the community in the sense of being socially beneficial. They also mentioned about the duty and/or responsibilities to be fulfilled by citizens, such as paying tax and joining the army in relation to civic responsibilities. These are similar to the result of this research in terms of relating citizenship to social values and addressing individual right, duty and responsibilities. Also, in the study carried out by Avcı (2015), students related the value of patriotism to civic right, duty and responsibilities in the pictures they drew for patriotism. This finding supports this research in terms of relating citizenship to values. In the international literature, citizenship is considered in the sense of participation in democratic and social life and some social responsibilities (Egerton, 2002; Hatcher, 2011; Richey, 2011). This also supports the student opinions on citizenship concept.

In this research, students consider identity and citizenship concepts to be interrelated both with the pictures that they have drawn and in the answers that they have given to the interview form. Several studies in the literature relate the concept of identity and citizenship (Thompson, 2004; Zajda, Daun and Saha, 2009; Journell, 2011; Pamuk and Alabaş, 2016; İbret and Karasu-Avcı, 2017; Karasu-Avcı and İbret, 2019). In these studies, raising good and effective citizens through Social Studies course is directly proportionate to gaining correct and healthy identity.

In line with the results obtained from the research, the following suggestions can be made:

- Considering the relationship between identity and citizenship concepts, curriculum developers can reflect this to the curriculum. Thus, it can be possible to gain students' attention for the subject.
- In addition that identity is a document containing personal information, different examples and learning outcomes can be included in curriculum and course books.

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## Teachers' Opinions on Inclusive Education\*

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### ABSTRACT

The aim of this research is to determine the opinions of teachers working in the city of Kastamonu towards inclusive education and to investigate what inclusive education practices are. For this purpose this research was conducted from a qualitative perspective. The study group consists of thirteen teachers from various branches working in the province of Kastamonu. While collecting data, the semi-structured questionnaire form of the correspondence technique, which is one of the qualitative data collection techniques, was used. The questionnaire consists of two parts, including the Personal Information Form and questions related to the purpose of the research. The responses of the participants to the teacher correspondence questionnaire were evaluated in the context of the content and the findings of the study were collected in five dimensions; inclusive education approach, what teachers should do, teacher practices, school policies to be applied and policies to be applied across the country. In the research, it was observed that teachers had a general idea about inclusive education, but they were also associated with the education of people with disabilities. Teachers mostly stated that they provided education according to individual differences. They stated that the physical environment should be regulated in schools and in-service trainings should be provided nationwide. As a result of this research suggested that in-service trainings should be organized in addition to inclusive training for teachers.

#### Keywords:

Inclusion, Inclusive Education, Teachers' Opinions, Qualitative Research

### 1. Introduction

Children exposed to exclusion due to income status, place of residence, ethnicity, immigration, disability status and gender are referred to as disadvantaged children. The educational practices recommended for disadvantaged children are determined as inclusive education in the literature. According to the view that lies in the philosophy of inclusive education, disadvantaged children will be able to continue their education life by providing qualified education in schools where inclusive education practices are adopted and it will be possible to ensure that they are brought into society. The core of its inclusive education is human rights and an approach to equal education for all. Inclusive education is an approach that started with the separation of special needs from past to present and then evolved into inclusion and integration and ultimately used as an inclusive education approach. This approach is different from the mainstream model of inclusive education include all students. All students are children who are exposed to exclusion due to income status, place of residence, ethnicity, immigration, disability and gender. While only those who are mainstreaming students can benefit from a individualized education for the last thirty years, the children of families with low income, from different cultures and immigrants who are disadvantaged in the society could not have more and specially planned education. In other hands, access to education of children in the world and Turkey is a pivotal issue in dropping out of school as a major problem. According to UNICEF, 57 million children in the world are deprived of access to education for various reasons (UNICEF, 2013). Unlike

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inclusive education, it is not only developed for children who need special education, but also includes education of all disadvantaged children. In addition, while mainstreaming focuses on student exchange, there is a school-based change in inclusive education (Rakap, 2018). In this context, inclusive education represents a broader perspective compared to mainstreaming. Many definitions have been made in the literature on the inclusive approach. This is because the inclusive education philosophy is versatile and includes many factors (Gürgür, 2019). Buna rağmen According to the definition of UNESCO all students can access and fully participate in learning, supported by reasonable accommodation and teaching strategies designed to meet their individual needs. (UNESCO, 2019).

While explaining the concept of inclusive education, it is stated in the literature that it is built on access, participation and support components (DEC-NAEYC, 2009). In this context, the concept of access is explained as bringing the student with special needs to the highest quality education. The concept of participation is to ensure that the student with special needs actively participate in a high-quality learning environment. The concept of support is explained as supporting inclusive education and providing all infrastructures including experts, families and managers. While adopting inclusive education, teachers have important roles. Some of these are highlighted in the literature as instructional arrangements, physical arrangements, keeping in-class records, effective collaboration and quality communication should be adapted to curriculum (Yılmaz, Uysal & Koç, 2019). Among the physical arrangements of the classroom, arrangements such as providing plenty of natural light, providing a space free from distractions, placing the mainstreaming student close to her and providing technology support can be listed (Mastropieri & Scruggs, 2010). In addition, dividing homework into small steps, getting peer assistance, giving worksheets, making text adaptations according to the student's level, giving additional time to the student, supporting with resource books and materials are among the educational arrangements and curriculum adaptations (Reid ve Green, 2018). In addition to these, keeping records by making classroom observations and being in effective communication with students are among the important roles of classroom teachers (Ministry of National Education Special Education and Rehabilitation Center Special Learning Disabilities Support Education Program, 2008). These responsibilities and roles are also seen to be related to the qualifications of the educators. This research has been started by wondering what teachers' views and practices regarding inclusive education which emerged as a comprehensive and basic understanding of education worldwide. In this study, it was aimed to examine the opinions of teachers working in the province of Kastamonu towards inclusive education and to investigate what inclusive education practices are.

## **2. Method**

### **2.1. Research Design**

In this study, was aimed to determine the teachers' views and to investigate what practices they did regarding inclusive education. For this purpose this research was conducted from a qualitative perspective. In the abstract, qualitative research is a inductive and deductive way of reasoning in a natural environment using multiple methods in which the researcher is a tool (Creswell, 2012). Besides this, with qualitative research, researchers try to make sense of them by interpreting the concepts they create in people's minds. (Merriam, 2013). The qualitative pattern fits the spirit of the study, as this research aims to define teachers' views on inclusive education. This research is a basic qualitative research in which data is collected by correspondence technique. In the correspondence technique, the data are collected by written communication tools. The most commonly used correspondence technique is a questionnaire, and it is separated because the communication is provided only by correspondence with the interview technique (Karasar, 2005).

### **2.2. Participants**

In this study, thirteen teachers from various branches working in Kastamonu were included. These branches involved primary teacher, religious culture and moral knowledge teacher, social science teacher, Arabic language teacher, English language teacher, visual art teacher, psychological counseling and guidance teacher and special education teacher. Four of them are male and nine of them are female. Three of the teachers are religious culture and moral knowledge teachers, two of the teachers are primary school teachers, two of the teachers are psychological counseling and guidance teachers, two of the teachers are English language teachers and one of teacher is Arabic language teacher and one of teacher is social sciences

teacher and one of teacher is a visual art teacher and of teacher is a special education teacher.. Participants of the research were coded T1, T2, T3, T4,.....and T13. Features of participants such as gender, professional seniority and education status regarding inclusive education are given in Table 1. below.

**Table 1.** Demographic information

Participant's Name	Gender	Professional Seniority	Branches	Education Status Regarding Inclusive Education
T1	Female	15	Religious Culture and Moral Knowledge	No
T2	Male	17	Social Sciences	Yes
T3	Male	21	Primary School	Yes
T4	Female	21	Primary School	Yes
T5	Female	20	Religious Culture and Moral Knowledge	No
T6	Female	1	Arabic Language	No
T7	Male	18	English Language	No
T8	Female	9	Psychological Counselling and Guidance	Yes
T9	Female	7	Visual Art	No
T10	Female	4	Psychological Counselling and Guidance	Yes
T11	Male	20	English Language	No
T12	Female	17	Religious Culture and Moral Knowledge	Yes
T13	Female	7	Special Education	Yes

### 2.3. Data Collection

In collecting data, the semi-structured questionnaire form of the correspondence technique, which is one of the qualitative data collection techniques, was used. Semi-structured Teacher Questionnaire Form, which was developed by examining the literature by the researcher, was used as data collection tool. The questionnaire consists of two parts, including the Personal Information Form and questions related to the purpose of the research. While the first part of the written questionnaire contains the demographic information (branches, gender, professional seniority and education status regarding inclusive education of the participants, the second part contains five questions for inclusive education. In the second part of the questionnaire, answers to the following questions were sought with five questions created by the researcher:

1. What does inclusive education mean to you?
2. What kind of practices do you think should teachers who adopt inclusive education do for disadvantaged children?
3. What kind of applications do you do when you have a disadvantaged student in your class?
4. What kind of studies do you think should be done in a school that adopts inclusive education as a school policy?
5. What kind of studies should be done across the country to include inclusive education in our education system?

### 2.4. Data Analysis

Before starting the correspondence technique, each participant was informed about the study objective, the voluntary basis of participation and that the data to be acquired from them would only be used for scientific purposes. After deciphering the data, the analysis process was started by using descriptive and content analysis strategy. Similar and common concepts that occurred many times among the written documents that were read by the researcher were written on the code list and interesting pattern terms were recorded

on a separate document. Descriptive analysis of the qualitative research was carried out in accordance with the philosophy of the qualitative research by using the remarkable expressions of the participants. Categories and themes were created by associating the concepts in the expressions of the participants with each other.

**2.5. Validity and Reliability**

In order to ensure the validity of the research, the statements of the participants were included directly. In the other hand in order to ensure the reliability of the research, the reliability formula of Miles and Huberman was used. According to the inter coder reliability formula of Miles and Huberman, two different researchers who are experts in their fields analyze and analyze the data. As a result of these codings, the categories agreed and disagree among the experts are determined and the agreement percentage between the opinions of the two experts can be determined by the inter coder reliability formula (Miles & Huberman, 1994). Subsequently, the researcher and a qualitative research specialist were studied. Qualitative research specialist was asked to encode all data, and the percentage of agreement between coders was calculated. The agreement percentage obtained is 0.93. It can be said that the percentage is acceptable and the study is reliable.

**3. Findings**

In this chapter, the data collected in this study aiming to reveal teachers' views on inclusive education were analyzed and interpreted. Consequently, categories created from concepts and five dimensions related to the categories are presented with the opinions of the participants. The responses of the participants to the teacher correspondence questionnaire were evaluated in the context of the content and the findings of the study were collected in five dimensions (inclusive education approach, what teachers should do, teacher practices, school policies to be applied and policies to be applied across the country). In this section, each dimension via content analysis are given presented as separate tables.

**3.1. Inclusive Education Approach**

The opinions of the participants regarding the inclusive education approach are divided into 2 different categories as "rights" and "education". Table 2 shows the data obtained.

**Table 2.** Teachers' views on inclusive education approach

Categories	Inclusive Education Approach	Teacher's Code
Rights	Reducing discrimination	1
	Carrying out education to cover all children by considering differences	10
Education	Including people with disabilities in general education	5
	An educational approach that includes integration	1
	Education understanding of teacher-family-student	1

When Table 2 is examined, 10 participants emphasized, in the education category, inclusive education as an education covering the all children. One of the participants stated,

*"All children have the right to receive the same education with their peers, regardless of their disability, disadvantage and refugee social status..."* (T4) which explained that inclusive education.

Another participant stated,

*"Democracy and tolerance should form classes that do not allow gender, race, nationality, culture and religion..."* (T2) which is an example to one of the inclusive education approach.

Then, 5 participants stated that inclusive education is the participation of the disabled in general education. While expressing as one of the participants for this subcategory,

*"...to include students with disabilities in general education..."* (T1) another *"It is a form of education applied for students with advanced disabilities or special education needs..."* (T6) has expressed.



### 3.2. What Teachers Should Do

The opinions of the participants regarding to what teacher should do are divided into three different categories as “teaching”, “emotion” and “awareness”. Table 3 shows the data obtained.

**Table 3.** Teachers’ views on what teachers should do

Categories	What Teachers Should Do	f
Teaching	Teaching suitable for individual differences	7
	To be able to prepare materials	2
	Giving an equal opportunity to the students	2
	To prepare BEP	1
	Finding solution to problems	1
	Creating a democratic classroom environment	1
	Uncovering students' strengths	1
	Multi-sensory teaching	1
	Using peer teaching	1
Emotion	Developing a sense of empathy	3
	Love of profession	1
Awareness	Respect for cultural and individual differences	2
	Providing peer awareness	2
	Getting educated	2
	Cooperation with parents	1
	Getting help from expert	1
	Directing students to receive psychological support	1
	To make the student sit in the front row	1

When Table 3 is analysed, 7 participants in the teacher categories stated that they are for teachers to provide training according to individual differences. Afterwards, 2 participants emphasized that they should prepare appropriate materials and give all students an equal chance of education. The teachers' statements are as follows:

*“Special programs and additional events and plans should be organized for them.” (T10)*

*“Different studies should be done according to the learning style of disadvantaged students.” (T11)*

*“A teacher must give education to students by giving them equal opportunities by approaching them according to their individual differences.” (T4)*

A teacher used the following statement, emphasizing the revealing of the students' strengths:

*“It is necessary to direct and assign duties to sports, music and artistic activities and to reveal their skills in these fields.” (T11)*

In the Emotion category, 3 participants stated that teachers should improve their empathy skills. One of the participants stated that,

*“Teachers who adopt inclusive education should first empathize. They should teach the children they teach as if they were teaching their own children.”(T4)*

*“Firstly, a sense of empathy should be developed in these teachers. The teacher, who develops this feeling, can prepare an environment suitable for his education even in all kinds of difficulties.” (T3)*

In the awareness category, 2 teachers each stated that peers' awareness should be increased, cultural and individual differences should be respected and education should be taken. Teachers' statements on this matter are listed as follows:

*“In order for a teacher to train herself in inclusive education practices, she must first receive problem solving and communication skills training.” (T8)*

*“First of all, separation in the classroom and the otherization of the student should not be allowed. Students should be asked to respect differences.” (T12)*

### 3.3. Teachers’ Practice

The opinions of the participants regarding to what teacher practice are divided into two different categories as “for disadvantaged students” and “for all students”. Table 4 shows the data obtained.

**Table 4.** Teachers’ Views on Their Practices

Categories	Teachers’ Practice	f
For disadvantaged students	Appropriate training to individual characteristics	5
	Ensuring the active participation of the disadvantaged student in the learning environment	3
	To be able to prepare materials	3
	To prepare BEP	3
	One to one care	2
	To let the student progress at her own pace	2
	Provide self-acceptance and self-esteem training for disadvantaged individuals	2
	Making lots of practices	1
	To make the student sit in the front row	1
	To give worksheets with large font	1
	Not to feel different	1
	Training time programming	1
	Using peer teaching	1
	Multi-sensory teaching	1
For all students	To teach empathy and respect for individual differences	2
	To create a positive mainstreaming environment	2
	Physical environment regulations	1
	Making awareness studies	1
	Detect the difference	1
	Getting expert help	1

As seen in Table 4, according to participants’ opinion regarding for their practices, 5 teachers in the for disadvantages students categories stated that they appropriate training to individuals characteristic. Teachers' statements on this matter are listed as follows:

*“I organize special programs and additional activities plans that are suitable for individual features.” (T9)*

*“I prepare a lesson plan suitable for them level. I make a subject that is covered during the lesson process in the simplest way and let them join the lesson.” (T6)*

*“Unfortunately, our classrooms do not leave us time to spare time for our disadvantaged students. However, whenever I have the opportunity, I prepare documents suitable for their individual differences and have conversations.”(T5)*

She was only one participant who said she was teaching peer and gave the following statement:

*“I apply peer teaching method. I match academically good students with students who have problems with lessons.” (T13)*

In addition, two participants (T10 and T8) stated provide self-acceptance and self-esteem training for disadvantaged individuals. The statements of the participants are as follows:

*“In addition to ensuring the active participation of the disadvantaged students, I do self-acceptance studies.” (T10)*

*"I do awareness activities for all my students at my school. For my disadvantaged students, I do self-acceptance, empathy, respect and self-esteem studies." (T8)*

As seen in Table 4, according to participants' opinion regarding for their practices, 2 teachers in the for all students categories stated that they teach empathy and respect for individual differences and they create a positive mainstreaming environment. The statement of one of the participants on this subject is as follows:

*"I ensure the active participation of the student in the lesson. I support them with studies on empathy, respect for individual differences and self-acceptance." (T3)*

### 3.4. School Policies to be Implemented

The opinions of the participants regarding to what school policies to be implemented are divided into two different categories as "approach" and "educational". Table 5 shows the data obtained.

**Table 5.** Teachers' Views on School Policies to Be Implemented

Categories	School policies to be implemented	f
Approach	Physical environment regulations	7
	Justice and egalitarian management approach	2
	Providing material support	1
	Identification of students with disabilities identified carefully	1
Educational	Parent awareness studies	3
	Organizing awareness-raising seminars for peers	2
	Art-social-sports activities	2
	In-service training for teachers	1
	Organizing social activities that will feel safe and valuable for each individual	1
	Opening active school clubs	1
	Determining students' strengths and directing them	1
Providing education suitable for students' levels	1	

As seen in Table 5 in approach category, 7 participants determined the physical environment regulations. Participants' statements on this matter are listed as follows:

*"Environmental regulations such as ramp, elevator and field must be made for disabled people." (T10)*

*"The boards in the school should be prepared in different languages for foreign students. In other words, boards prepared in Turkish can be translated into different languages for disadvantaged refugee students." (T13)*

*"Practices that facilitate the work of disadvantaged students should be carried out as much as possible. Stairs, their location in the classroom and environments where they can easily reach canteens or toilets where they will not be damaged during breaks should be provided." (T1)*

*"Adequate resource rooms should be opened and existing resource education rooms should be reorganized." (T5)*

Moreover, in the educational category, 3 participants stated that schools should follow a parent awareness policy. The statement of one of the participants on this subject is as follows:

*"Cooperation with parents is very important for me. For this reason, I try to organize an education by including parents in education activities." (T3)*

### 3.5. Policies to be Applied Across the Country

The opinions of the participants regarding to policies to be applied across the country are divided into three different categories as "education and awareness", "economic support" and "other studies". Table 6 shows the data obtained.

**Table 6.** Teachers' Views on the Policies to Be Applied Across the Country

Categories	Policies to be applied across the country	f
Education And Awareness	In-service training for teachers	4
	Awareness of the society about the disabled people	3
	Providing education suitable for students' levels	2
	Organizing awareness-raising seminars for teachers	2
	Respect for differences student education	1
	Educational support for school administrators to increase opportunities for disabled people	1
	Expanding the application fields	1
	Affective teacher training	1
Economic support	Physical environment regulations	6
	Providing economic support to schools	1
	Providing economic support to teachers	1
	The need to appoint a guidance teacher	1
Other studies	Development and supervision of curriculum by considering individual differences	3
	Identification of students with disabilities	1
	A joint study is required nationwide	1
	The creation of learning environment outside the classroom	1

As seen in Table 6 in education and awareness category 4 participant regarding on policies on across the country want to in-service training for teachers about inclusive education. Participants' statements on this matter are listed as follows:

*"Teachers across the country should be given not only field education but also an affective education." (T3)*

*"Firstly, teachers should be provided with an adequate and effective training in this field." (T5)*

*"With school administrations, teachers should be trained on how these students can be educated more easily and without hurting, how opportunities can be increased and what they can do." (T1)*

Besides this, 6 participants stated that economical supports should be made regarding inclusive education activities to be carried out across the country. There are also 3 participants highlighting development and supervision of curriculum by considering individual differences. Some participants' statements on this matter are listed as follows:

*"Education programs should be developed taking into account the individual characteristics of the students and the education of the students. And these programs should be supervised." (T4)*

*"Firstly, the curriculum prepared should be more flexible and should be prepared by considering the individual differences of the students." (T12)*

*"Teachers can be supported by providing material and financial support across the country on inclusive education." (T2)*

In addition, a participant in the other studies category states:

*"In order to cover all students, which is the most important aspect of this field, a joint study should be designed across the country in the field of inclusive education and it should be ensured that the inclusive education approach is placed at all levels of education." (T10)*

#### 4. Conclusion and Discussion

In this study, which aims to explain what teachers' views and practices about inclusive education, teachers were asked to answer the teacher controversy questionnaire consisting of five questions. When the findings were examined, it was seen that the participants mostly understood the individuals with special needs in

inclusive education. In this context, it is hoped that the research results will help in understanding inclusive education correctly in our country. In this context, inclusive education approach, what teachers should do, teachers' practice, school policies to be implemented and policies to be applied the country categories have emerged. In the inclusive education approach category, teachers were mostly informed about inclusive education but it was observed that they included "students with special needs" and answered the written questionnaire. However, 8 out of 13 participants stated that inclusive education is Carrying out education to cover all children by considering differences. The majority of the participants stated that teachers who adopt an inclusive education approach should teach according to individual differences. Then, the participants emphasize that teachers should improve their empathy skills. As a supportive view to this finding, Şeker and Aslan (2015) suggests that teachers gain a multicultural perspective, train without any prejudice, and realize their education by being aware of the child's emotions. In the context of inclusive education, they stated that the participants planned the most appropriate education for individual differences, prepared appropriate materials, prepared and implemented an individualized education program and enabled their students to participate effectively in the educational environment. There are studies supporting this finding in the literature (Gürdoğan Bayır, 2019; Ayan Ceyhan, 2016). By differentiating teaching according to individual differences, a meaningful education is provided by prioritizing students' readiness levels, interests, and learning styles and targeted gains are foreseen (Mastropieri & Scruggs, 2010). The fact that the participants stated that the most needed to be done in the schools are the environmental arrangements, and that the inclusive education is associated with the education of the disabled. They also reported that, as inclusive education practices across the country, the participants should mostly develop physical and technical opportunities in schools and provide in-service training to teachers. There are studies supporting these findings in the literature (Ayan Ceyhan, 2016; Önder & Güçlü, 2014; Özan, Şener, Polat, & Yaraş, 2015). It is stated in the literature that it is the responsibility of the school management to make physical arrangements within the school (Avcı & Bal, 1999). In addition, the task and responsibilities of school administrators include creating a special education team, trying to ensure the planning and continuity of the process, conducting follow-up studies, providing access to academic information and special education specialists that teachers need, involving special education personnel outside the school, backing up the student records. (Yılmaz, Uysal & Koç, 2019). Parent awareness studies stated by three participants are seen as an important pillar of inclusive education. In this context, it should be considered that the participants' discussion of parent awareness studies is an important finding. In the inclusive education approach given by taking the student to the center, the parents who the student shares out of school should also be included in the inclusive education. (Ayan Ceyhan, 2016; Pekdoğan & Bozgün, 2018; Önder & Güçlü, 2014). Peer education is stated as a very effective method in inclusive education. (Oral, 2016). In this context, only one of the participants applied this method shows that teachers are very inadequate in this regard. On the other hand, it is one of the important findings of the research that there is only one participant who stated that he revealed the strength of his student. In line with the results of the research, it is recommended to organize in-service trainings supported by methods, techniques and strategies that include educational activities involving disadvantaged students, as well as inclusive training for teachers. In addition, it is recommended to carry out awareness studies covering teachers, students and families within the scope of an inclusive education project throughout the country. seminars, billboards, family awareness campaigns to be held in the first weeks of educational activities are among these suggestions.

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## Health Promotion Action Plan Can Improve the Level of Physical Activity in Secondary School Teachers\*

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### ABSTRACT

The aim of this pilot study was to investigate the relationships between health promoting activities and physical activity of secondary school teachers. Forty secondary school teachers took part in the study by completing a questionnaire on health promotion (HPQ) and physical activity (IPAQ). A multiple regression analysis was performed to examine whether health promotion activities predict the level of physical activity of teachers. The results showed that a comprehensively designed, properly implemented, and evaluated health promotion action plan sufficiently motivates employees to ensure their good psycho-physical well-being through regular physical activity. The implementation of a health promotion plan can be a long-term investment in the health of employees.

#### Keywords:

job-related physical activity; recreation; prediction; health

### 1. Introduction

Health is an overall value and a key factor in the quality of life of individuals and society. A healthy individual is more productive, so maintaining and improving health should be in the interest of every employer. Therefore, health care is not only in the interest of the individual, but in the long term, health care is the task of the entire society.

The workplace is one of the most important environments that affect the physical, mental, economic and social well-being of employees, the health of their families, communities, and society (Chu et al., 2000). In addition to the workplace, workers' health is also influenced by preventive measures such as awareness-raising and education about health-promoting activities. The workplace has been identified as an important setting for health promotion because it can reach large groups of people, and make use of a natural social network (Dishman, Oldenburg, O'Neal, & Shephard, 1998). By implementing workplace health promotion, positive changes could be introduced which would also improve the general success of the organization. One of the factors that positively influence employee psychosocial well-being is physical activity (PA) (Brown, Gilson, Burton, & Brown, 2011).

Even brief advice or brief intervention (e.g., verbal advice, discussion, encouragement) of no more than 30 minutes duration to promote PA can have a positive impact on self-reported PA in adults (Lamming et al., 2017). Education is one of the main factors for self-regulation of PA; better educated individuals - such as teachers - are more likely to translate intentions into PA (Schüz, Li, Hardinge, McEachan, & Conner, 2017) and need different intervention strategies compared to individuals with lower educational attainment.

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Godin et al. (2010) found that individuals with higher education form more stable intentions, which are more resilient to temptations that might endanger the translation of intention into action. In addition, it is possible that specific occupational characteristics (e.g., less fixed time constraints) could facilitate translation of intentions into PA. To date, it is unclear which *behavioural change techniques* (e.g., action planning, prompting self-monitoring of the outcome, social support) are most effective in changing and sustaining PA by increasing self-efficacy for PA; different populations require different approaches (Tang, Smith, Sharry, Hann, & French, 2018).

In Slovenia, the participation of employers in the health care of employees is regulated by law at the national level. The Act on Health and Safety at Work (2011) with its articles 6 and 32 obliges the employer to plan and implement workplace health promotion. The employer must provide the necessary resources and monitoring of health promotion activities to maintain and promote the physical and mental health of workers. This law applies to schools at all levels.

In addition, the employer must include in the safety declaration, with a risk assessment, the promotion of health at work, which is laid down in Article 76 of the Act (2011). The Ministry of Health, in cooperation with the National Institute of Public Health also developed guidelines and recommendations for the implementation of health promotion. Improving the work organization and working environment, encouraging employees to actively participate in health-promoting activities, facilitating a healthy lifestyle, and promoting personal development are the main points of the above-mentioned guidelines and recommendations.

The teaching profession is demanding and causes problems in physical and mental health, which is reflected mainly in poor work in the classroom, greater sick leave or even leaving the profession (Slivar, 2009). Therefore, it is important to provide teachers with adequate support for health enhancing PA. Workplace health promoting interventions can improve physical activity in some subjects, and these changes may in turn improve selected health outcomes, work culture, and job stress (Conn, Hafdahl, Cooper, Brown, & Lusk, 2009). However due to the complex content of the problem and heterogeneity in studies, further research is needed. No study was conducted to test whether health promotion activities in Slovenian schools are related to a higher level of PA among teachers. As a first step in exploring these relations, a pilot study has been conducted to find out which health promotion activities, and to what extent, help change teachers' levels of physical activities.

## 2. Methods

A questionnaire on health promotion (HPQ) and International physical activity questionnaire (IPAQ) have been sent to forty secondary school teachers. Most of the participants were women (82.5%) which is consistent with the national average. According to the national statistical office, there were 82% of women and 18% of men employed as secondary school teachers in 2015/16. Most of the participants was 41–50 years old (52.5%) and worked in the school with 301–600 students that is the most frequent school size on the national level. The number of participants from the eastern vs. western region was well balanced (Table 1).

**Table 1.** Socio-demographic characteristics of the sample

Characteristics		N = 40	% sample
Gender	Female	33	82.5
	Male	7	17.5
Age	<31	1	2.5
	31–40	7	17.5
	41–50	21	52.5
	51–60	10	25.0
	>60	1	2.5
Region	West	21	52.5
	East	19	47.5
School size	<301 students	8	20.0
	301–600 students	28	70.0
	>600 students	4	10.0



A long version of the IPAQ to measure the overall level of PA and job-related PA over the last seven days in terms of frequency, duration, and intensity of activity was used. A standardized scoring process was followed (IPAQ, 2005). The IPAQ is a widely used, valid, and reliable international tool for measuring levels of PA among 18- to 65-year-old adults (Craig et al., 2003). Test-retest reliability was measured with Spearman correlation coefficients ranging from 0.96 to 0.46, most of them around 0.80. Furthermore, interclass correlation coefficient calculated by Vandelandotte et al. (2005) ranged from 0.60 to 0.83 indicating moderate reliability for moderate intensity PA and very good reliability for high intensity and leisure-time PA. The HPQ was developed to measure health promotion activities that were used in schools according to the law. The content validity of the HPQ was conducted by two experts that had over two decades of experience in PA research. In addition, the HPQ was sent to two secondary school teachers for face validity. All comments have been considered in the final version of the questionnaire. Furthermore, the Cronbach alpha ( $\alpha = .777$ ) showed very good internal consistency of the HPQ.

Two multiple regression analysis were conducted. In the first analysis, the level of job-related PA (in MET minutes/week) was used as a criterion variable and health promotion variables and socio-demographic variables were used as predictors. In the second analysis, the overall level of PA (in MET minutes/week) was used as a criterion variable and health promotion variables and socio-demographic variables were used as predictors. The VIF value of all predictors was less than 10, pointing out no problems with multicollinearity (Kock & Linn, 2012). Statistical analysis was conducted with the statistical software Jeffreys's Amazing Statistics Program (JASP, Version 0.13.1).

### 3. Results

Model 0, which includes the gender and age of the teacher, the possibility of teachers to participate in the planning of health promotion policy (PZPN4), and analysis of teachers' physical activity needs (PZPN9), was able to explain 50% of the variance in job-related PA.

**Table 2.** Results of Multiple regression analysis with job-related PA as a criterion variable

	<b>B</b>	<b><math>\beta</math></b>	<b>t</b>	<b>p</b>	<b>VIF</b>	<b>F</b>	<b>p</b>	<b>R<sup>2</sup></b>
Overall model						2.041	0.058	0.612
Model 0						8.608	< .001	0.496
Constant	5063.852		6.015	< .001				
Gender	-868.068	-0.368	-3.030	0.005	1.022			
Age	-396.426	-0.348	-2.865	0.007	1.023			
PZPN4	-205.580	-0.214	-1.777	0.084	1.009			
PZPN9	-766.895	-0.377	-3.136	0.003	1.002			

*Note.* The overall model includes Gender, Age, School region and 14 HPQ predictors; PZPN4 – possibility to participate in the planning of health promotion policy; PZPN9 – analysis of teachers' PA needs; VIF – variance inflation factor

The variables from Model 0 were statistically significantly predictive of the job-related PA,  $F(4, 35) = 8.608$ ,  $p < .001$ . PZPN9 (Beta =  $-.377$ ,  $t = -3.136$ ,  $p = .003$ ), gender (Beta =  $-.368$ ,  $t = -3.030$ ,  $p = .005$ ), and age (Beta =  $-.348$ ,  $t = -2.865$ ,  $p = .007$ ) were the variables that best predicted the level of job-related physical activities (Table 2). Unless schools analyse the teachers' needs for PA, we can expect that the level of job-related PA will decrease by 767 MET minutes/week. We can also predict lower job-related PA in women and older teachers. For every decade we can expect the job-related PA to decrease by 396 MET minutes/week.

Model A, which includes the teacher gender, access to free fruit (PZOI6), the option to opt for healthy meals and beverages at work (PZOI7), and the stimulation of teachers for regular recreation (PZPN11), was able to explain 24% of the variance in overall PA (Table 3). The variables from Model A were statistically significantly predictive of the overall PA,  $F(4, 35) = 2.810$ ,  $p = .040$ .

**Table 3.** Results of Multiple regression analysis with overall PA as a criterion variable

	<b>B</b>	<b>β</b>	<b>t</b>	<b>p</b>	<b>VIF</b>	<b>F</b>	<b>p</b>	<b>R<sup>2</sup></b>
Overall model						0.752	0.723	0.368
Model A						2.810	0.040	0.243
Constant	16757.998		4.020	< .001				
Gender	-3488.518	-0.345	-2.334	0.025	1.011			
PZOI6	-668.769	-0.087	-0.588	0.560	1.012			
PZOI7	-1705.943	-0.241	-1.626	0.113	1.016			
PZPN11	-1434.990	-0.230	-1.547	0.131	1.019			

Note. The overall model includes Gender, Age, School region and 14 HPQ predictors; PZOI6 – access to free fruit; PZOI7 – opt for healthy meals and drinks at work, PZPN11 - encouraging to be regularly physically active outside work, VIF – variance inflation factor

Gender (Beta = -.345, t = -2.334, p = .025) was a variable that statistically significantly predicts the overall level of PA (Table 3). We can expect women to achieve 3489 MET minutes/week less than their male counterparts. The data showed that most women were moderately physically active (39.4%), while most men were highly physically active (57.1%) (Table 4). Only 27.3% of women were highly physically active. More important predictors related to overall PA included PZPN11 (Beta = -.230, t = -1.547, p = .131) (Table 3). To the extent that the employer stimulates teachers for regular recreation, it can be expected that their overall PA will increase by 1435 MET minutes/week. Additionally, a higher proportion of teachers were classified as highly physically active (63.6%) in case the employer stimulated them for regular recreation. If they were not motivated, the proportion of highly physically active teachers would have been significantly lower (16.7%).

**Table 4.** Percentage of men and women according to their overall PA level

	<b>Gender</b>		<b>Total</b>
	<b>Men</b>	<b>Women</b>	
Low PA level	14.3 %	33.3 %	30.0 %
Moderate PA level	28.6 %	39.4 %	37.5 %
High PA level	57.1 %	27.3 %	32.5 %
Total	100.0 %	100.0 %	100.0 %

## 4. Discussion

### 4.1 Job-related physical activity

The possibility of teachers to participate in the planning of health promotion policy at work, analysis of teachers' PA needs, as well as their age and gender can help us predict teachers' level of job-related PA.

Our results showed that the gender and age of teachers are significantly linked to job-related PA. Among the groups of teachers who showed to be more prone to lower levels of PA are women and older teachers. Low participation level in workplace health promotion programmes may partly explain the large differences in the effectiveness of aforementioned programmes (Matson-Koffman, Brownstein, Neiner, & Greaney, 2005; Proper, Koning, van der Beek, Hildebrandt, Bosscher, & van Mechelen, 2003), thus it is necessary to pay special attention to these two groups in the planning of health promotion policy in schools. One of the mechanisms to increase their PA levels is to actively engage them in health promotion activities. The active role of teachers in health promotion policy has proven to be an important predictor of the job-related PA level. This is in line with previous findings, that teachers should participate in school management and organization and that they should be active and engaged in school policy decisions regarding health promotion (Deschesnes, Martin, & Hill, 2003). This is especially important during the early phases of implementation (Adamowitsch, Gugglberger, & Dür, 2017). Another important predictor of the job-related PA is analysing teachers' PA needs. Therefore, school management should consider individualizing PA to teachers' desires and requests. According to our results, teachers' active role in health promotion activities can increase their

level of job-related PA by 973 MET minutes/week. One of the criteria to qualify someone as a moderately active individual is to achieve at least 600 MET minutes/week. This means that measures, such as actively involving employees in promoting health can change teachers' exercise habits and consequently significantly affect their health.

As expected, Model A, which predicts teachers' overall PA, exhibited lower predictive power through selected variables than Model 0, which predicts teachers' job-related PA. The predictors from the HPQ mainly related to activities referring to the promotion of a healthy lifestyle at work, and to a lesser extent to the incentives for leisure-time PA, housework, and transportation PA. With the predictor variables, we were able to more clearly predict the variance of job-related PA, which is only one of four aspects of the overall PA (IPAQ, 2005). Overall PA consists of PA in leisure-time (e.g., recreation), at home (e.g., house maintenance), commuting (e.g., cycling to work) and at work (e.g., walking as part of the work).

#### 4.2 Overall physical activity

Participants in our sample were evenly distributed in terms of overall PA: 30.0% low physically active, 37.5% moderately physically active, and 32.5% highly physically active. Nonetheless, a larger proportion of women were low or moderately physically active, while most men were highly physically active.

The gender of teachers was significantly associated with overall PA; therefore, women, who can be expected to be less physically active would need special attention in health promotion policy. Offering healthy food and beverage options, access to free fruit, and encouraging them to be regularly physically active are activities that can significantly change their PA habits, not only at work, but also at home, in their leisure-time or the way they commute to work. With the implementation of the latter activities, we can expect the overall level of PA to increase by 3810 MET minutes/week. One of the criteria for qualifying someone as highly physically active is to achieve at least 3000 MET minutes/week. Thus, through thoughtful measures, we can significantly influence teachers' PA habits and, consequently, their health. Workers with higher PA levels tend to report fewer burnout symptoms when they perceive high stress levels (Gerber et al., 2020). Recent research report one hour a day of leisure-time PA and ninety minutes of moderate-to-vigorous PA is associated with the highest benefits regarding work-related stress (Lachance, Corbiere, Hains-Monfette, & Bernard, 2020).

#### 5. Conclusion

The results showed that a comprehensively designed, properly implemented, and evaluated health promotion action plan sufficiently motivates employees to ensure their regular PA. The implementation of a health promotion plan can be a long-term investment in the health of employees.

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## A Qualitative Research on the Problems and Expectations of Imam Hatip Secondary School Students (The Case of Istanbul Province)\*

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### ABSTRACT

Imam Hatip Secondary Schools are the schools where the lessons related to religion (The Holy Quran, Tafsir and Hadith etc.) are taught as a compulsory part of the curriculum. In other secondary schools, only one religion lesson is compulsory, and the other religion-related lessons are taught as elective. The aim of this research is to examine the problems of Imam Hatip Secondary School students in school, to learn their expectations and to identify the school of their ideals. The research was carried out through a semi-structured interview form, one of the qualitative research methods. It was held in 2019 at the 13 Imam Hatip Secondary Schools in Istanbul with the participation of 156 students. The research in which the results are given by creating themes; reveals that the students are generally satisfied with their schools, they love the school more to see their friends and participate in the activities. In addition, students have emotional expectations from their teachers and administrators; like showing them more interest and smiling. Students described their ideal schools as follows; school uniform is not compulsory, they only attend lessons of interest and have longer break hours. Teachers can have short conversations with their students before starting the lesson. Motivation activities can be held for the lessons students are hesitant about whether they will benefit them in the future. Most importantly, school can be developed in line with students wishes and needs by holding frequent meetings with their.

#### Keywords:

Religious education, Imam Hatip Secondary School, commitment to school, emotional expectation, human value.

### 1. Introduction

Schools are places where students spend most of their daily time. When students feel peaceful, happy and safe in schools, they are better connected to school and their education in general (Sarı, 2013). The fact that children are "happy" is undoubtedly an issue that almost everyone in a society can agree on. It is very important for children and adolescents to be satisfied and happy about their lives in terms of their emotional and social development (Bozkurt & Sönmez, 2016). In addition, the student, who is happy, peaceful and safe at school and accordingly has a high level of commitment to the school, tries to take more than what the school offers, besides being more successful academically. By internalizing what he has learned, he transfers them to practice more easily (Taş Akarsu, 2018).

It is possible to say that Imam Hatip schools that integrate social and humanitarian sciences as well as practical and theoretical sciences with Islamic sciences are a unique experience for our country. These schools have an important place in our country in meeting the religious, moral and spiritual needs of individuals as well as general education (Aktaş, 2017). Imam Hatip Secondary School (IHSS) are the schools

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in which religious lessons taught selectively in other secondary schools are taught as part of the curriculum. Because of the educational content and form given in these schools; a school climate and school culture, which is specific to these schools, is formed (DOGM, 2017). Religious understanding of students studying in these schools develop here. Parents send their children to these schools because they want not only academic success but also for their children to learn religion. For this reason, it can be said that the expectations and goals of the students studying in these schools and the parents who send their children to these schools differ from those in other secondary schools (Çiftçi, 2019). Theoretical and applied researches on various subjects related to the education model applied in Imam Hatip schools have been conducted. In this sense, one of the subjects to be researched is the student factor studying in these schools. This is because determining the expectations of the students and their problems in their school, which is the most important element of education, will result in a higher quality of education and new perspectives (Gencer, 2019). In this context, students' problems, expectations, goals and ideals are important for determinants, practitioners, parents and researchers.

The aim of this research is to examine the problems of IHSS students who have faced a new school with a different environment and curriculum than primary school and started to take religious lessons within the framework of a program prepared by the Ministry of National Education. This way, it will be possible to learn about their expectations and to determine the imagination of their ideal school. The problem statement of the research; "What are the problems that Imam Hatip Secondary School students experience in their schools and what are their expectations about the solution of these problems?"

## 2. Method

### 2.1 Research Design

This research is made according to the qualitative research method. The qualitative research method covers a process revealing perceptions and facts in a natural and inclusive manner aiming at understanding human life styles, behaviors, organizational structures and social change by utilizing data gathering methods such as observation, interview and document analysis (Yıldırım & Şimşek, 2016). Three stages are considered inevitable for a qualitative study: The establishment of the theoretical framework that will form the basis of the research is the creation of a systematic, feasible and flexible research design, and listing the research findings as a consistent and meaningful document (Balçı, 2015).

The research was carried out through a semi-structured interview form, one of the qualitative research methods. Since the research is carried out according to the qualitative research method, in this research type, it is aimed to create working environments that will facilitate in-depth study with a group that reflects the problem situation (Creswell & Plano Clark, 2018). In this regard, the working group was formed in 2019 with the participation of 156 students in 13 Imam Hatip Secondary Schools in the Sancaktepe, Sultanbeyli, Kartal, Pendik, Arnavutköy and Sultangazi districts of Istanbul. The demographic characteristics of the working group are shown in Table 1:

**Table 1.** Demographic Characteristics of the Participants in the Working Group

	Working Group	N	%
Gender	Female	74	47,4
	Male	82	52,6
Grade Level	5	30	19,2
	6	48	30,7
	7	34	21,7
	8	44	28,4
Total		156	100

Considering the gender and class distributions of the participants in the study group, it can be said that there is a balanced distribution in general and the data obtained reflect the students' perspective. The semi-structured interview form with open-ended questions was presented to the opinions of two faculty members who are experts in the field. Because of the expert opinion received, necessary corrections were made and the interview form was finalized. The six questions posed to students in the final form are as follows:

1. Does the school meet your expectations? What would you say about the features of your school that you like or dislike?
2. Does studying at Imam Hatip Secondary School make a difference about you at school, in your family or in your environment?
3. Have you ever thought, "I wish I didn't go to school today"? What are the reasons that make you feel this feeling?
4. What would you do if you were a teacher or administrator in this school?
5. Do you think that the lessons you study at this school will benefit you in the future?
6. Could you describe your ideal school?

Within the scope of the research, semi-structured interview forms were evaluated using content analysis, which is one of the qualitative research methods. Content analysis is a method that allows the data to be shaped systematically within the framework of predetermined categories. The main purpose in content analysis is to reach the concepts and relationships that will explain the collected data. In this respect, the process performed in content analysis is to encode similar data, classify them in the light of certain themes, and interpret them in a way that the reader can understand (Yıldırım & Şimşek, 2016).

## 2.2 Validity and Reliability

Various models have been developed in which validity and reliability criteria are categorized according to quantitative and qualitative research types. Validity in qualitative research can be described as stating the topic objectively in the frame of the main problem (Yıldırım & Şimşek, 2016). Some of the methods used as validity and reliability methods in qualitative research are: providing diversity of data collection (interviews, observations and document review), feedback (presenting the data set to the participants), making intensive identification while conveying the findings, clarifying the researcher's prejudices, presenting negative or inconsistent information in reverse order within the themes, working for a long time in the research area to present the data set to researchers working in the same field, to present it to an external researcher for the examination of the entire research (Creswell, 2019).

At this point, four main strategies; "dependability, credibility, transferability and confirmability" as trustworthiness criteria ensure the rigor of qualitative findings (Guba & Lincoln, 2005; Başkale, 2016; Çepni, Kılınç & Kılcan, 2018). For dependability, the following has been done; good structuring of data collection tool and research method was provided. The diversity of organizations was achieved thanks to schools with different student profiles. Participant volunteering was taken as basis and they were informed before the meeting. By making a pilot application, the questions were re-structured. For credibility, the following has been done; when and where the research was conducted was shared. Demographic characteristics of the participants were announced. The stages and details of the study were announced in order to repeat the research. Expert review and evaluation was carried out before and after the research. For transferability, the following has been done; record-taking, note-taking and observation operations were done in a natural environment, namely at school. The records were combined with the notes kept and analyzed. Some of the analyzed data was quoted unchanged in the research. For confirmability, the following has been done; while preparing the data collection scale, it was aimed to stay away from directing the participant by getting expert opinion. Care was taken to ensure that the participants were from people that the researcher did not know before. Focus group meetings were held to prevent the participant from turning to consensus with the researcher. Meetings were held in the school environment to maintain social distance with the participants.

## 3. Findings

Students in the study group were coded from S1 to S156. Student coding shows 5th grade students between "1-30", 6th grade students between "31-79", 7th grade students between "80-112", and 8th grade students between "113-156". The codes were created according to the answers given by the students to the six questions in the semi-structured interview form. Based on the findings, three themes were created under two headings. Then, code frequencies are given and students' opinions are presented. The topics that students are satisfied with at school, their problems and expectations are shown in tables.

### 3.1 Issues IHSS Students Are Satisfied With

The topics that Imam Hatip Secondary School students are satisfied in their schools are concentrated under seven headings. While one of the subjects that satisfy the students is about physical opportunities, six of them can be evaluated under the title of education. The topics that the students are satisfied with at school are shown in Table 2:

**Table 2.** Issues IHSS Students Are Satisfied With

Theme	Code	f
Issues IHSS Students Are Satisfied With	Giving religious education.	84
	Teachers and administrators to make an effort for them.	62
	Social facilities such as gym, dining hall and library.	53
	LGS courses are being held.	38
	Competitions and events organized at the school.	35
	Parents and other elders celebrate themselves when they practice religious.	29
	Taking lessons from foreign teachers in English-Arabic lessons.	16

The opinions of the students on the topics they are satisfied with are as follows: S1: "Our school is a very good school. Because the Holy Qur'an, Religious Culture and Hz. There are lessons of the Prophet's Life. We also do many activities about these lessons." S2: "Our teachers are kind and warm towards us." S3: "It is very fun to process the lessons on the smart board." S7: "I want to read and finish the Holy Qur'an from beginning to end until I finish this school. This way, I will make my family happier." S32: "I think what we have learned will be useful in the future because our lessons are generally religious." S33: "This school is different from other schools because we have classes such as the Holy Qur'an and Arabic." S35: "What I like most about this school is that the principal, assistant principals and teachers value us." S38: "My favorite things in this school are many the trips, mangala, chess and archery activities." S40: "It is good that the religious lessons are dominant, so we understand Islam better." S41: "School is good because lessons are fun and good. I get along well with my friends." S42: "I feel happy and safe here. Because when my teachers are with me, it is as if my parents are with me." S43: "What makes this school different from other schools is that girls and boys are in separate classes. We have extra religious classes and we participate in many activities." S80: "My school meets my expectations. Because there is a Z-library, mind games class, robotic coding class, music workshop and gym." S81: "I miss my school even on vacation. Because we are having fun with my friends whom I love so much." S82: "I am satisfied with the school. Because we have a masjid and a game room. Our last lesson is our homework lesson; so I don't have to do homework at home." S83: "Our teachers are very good, they treat us with understanding, and I want to be a teacher in this school." S84: "Being with my friends is the reason I come to school." S88: "I think the lessons we see at school will be useful. This is because when I become an architect, I need math when I go abroad." S92: "What I like about this school is that there are a lot of religious classes and classes are not divided as lazy people and hard-workers."

### 3.2 Problems Experienced by IHSS Students

The problems that Imam Hatip Secondary School students experience in their schools are concentrated under six headings. While three of said problems are related to education (short breaks, diversity and difficulty of lessons and unnecessary lessons), three topics are related to different topics. The topics that students are consider as problems with at school are shown in Table 3:

**Table 3.** IHSS Students' Problems

Theme	Code	f
IHSS Students' Problems	School uniform is compulsory.	51
	Short breaks.	44
	The lessons are very diverse, heavy and difficult.	37
	Cleaning problems in toilets.	29
	Some lessons that they think will not benefit them in the future.	25
	Physical equipment is missing or not suitable for them	21



The opinions of the students about the problems they face are as follows: S3: "The lack of a gym is the biggest problem. In winter, our right to physical education lessons is violated." S4: "I do not like everyone running and bumping into each other during recess. There is no area where we can play properly." S5: "If I was a teacher, I would not always raise the same person to the board to answer the questions, I would not be unjust." S8: "If I was a principal, I would give free books, notebooks and backpacks to all the Syrian students and all other students that are in need." S10: "If I was a teacher, I would not do oral exams so that children would not be stressed." S31: "Washbasins are not clean; toilet paper and soap are not available." S37: "If I was a teacher, I would not always choose the same students for the activities." S38: "Students usually go to the principal with fear. If I were the principal, my students would not come to me afraid." S39: "I do not think that what we learned in Arabic class will be useful. We forget it very easily anyways." S81: "Our principal speaks for a very long time ceremonies. Our bags are already very heavy, we get tired." S87: "We are very tired when we carry our bags. It would be nice if there were lockers at school and a place where we could rest when we got tired." S89: "The girls' lavatory is not clean, we don't have a gym, and we cannot do the physical education lesson properly." S90: "I wonder where in life we will use the algebraic expressions we see in mathematics in our lives." S91: "There were times when I said, 'I wish I didn't go to school'. Especially when I had not done my homework." S93: "The same people are always chosen in the plan/program, so sometimes I don't want to go to school." S114: "Eighth grades are deprived of activities because there is LGS. A football tournament could be held." S116: "Our backpacks are is very heavy. We do not have a locker at school. My ideal school is like the schools in those cartoons. Everyone has their own closet, and each lesson is held in a different classroom." S120: "I say the words 'I wish I did not come to school' every day. Because I have to get up very early." S125: "We all see the same lessons just like the doctor gives all the patients the same prescription. We are asked to understand all the lessons." S130: "One of the problems in this school is that the library is closed even at noon." S133: "When I can't get my sleep, I say 'I wish I didn't go to school'. Attention should be paid to all students, not just the hardworking students." S134: "If I was a principal, I would put not only girls but also boys on duty." S136: "The teachers' words during the first few hours feel like a lullaby. For this reason, I said, 'I wish I had not come'." S137: "It is very nice that our teachers work for us. However, I think some lessons are unnecessary for my future goal, profession. I do not want to study those lessons." S140: "I think the eighth grade should be specially dealt with. It would be better to do activities occasionally because we are constantly studying." S143: "When my homework is not complete, I say, 'I wish I did not go'. Because it is embarrassing to be called out in front of everyone." S144: "I do not like school clothes at all. When I see them, I say, 'I wish I didn't go.'" S145: "I think that the Quran and Math lessons will be useful, but the Arabic lesson will not."

### 3.3 Expectations of IHSS Students

The expectations of Imam Hatip Secondary School students are concentrated under six headings. The most important expectations of the students are seen as emotional expectations. They expect their teachers to be more interested in them and their administrators to show less angry attitudes. In connection with the department in which they express their problems, extending the breaks, eliminating the necessity of school uniform and reducing the variety of lessons are other expectations of the students. The topics related to the expectations of students about school life and education are shown in Table 4:

**Table 4.** Expectations of IHSS Students

Theme	Code	f
Expectations of IHSS Students	Teachers chat with them before starting the lesson.	75
	School principals are not angry.	66
	Free clothing practice at school.	53
	Lesson diversity reduction.	48
	Longer breaks.	46
	Improving physical facilities.	28

The opinions of the students about their expectations are as follows: S4: "If I were a manager, I would not allow the sale of harmful things in the canteen. I would have the disabled lane built; I would cover the school with a carpet." S6: "In my ideal school, everyone has a single and soft chair." S9: "In my ideal school, there is grass instead of garden concrete and there are soft cushions at the desks." S34: "If I was a teacher, I would give extra lessons to those who do not understand. If I were the headmaster, I would learn the wishes of my students by making regular surveys." S37: "If I was a teacher, I would talk to them when my students were upset." S39: "My ideal school is a school where we can wear a sweater on our school uniform, where we have our own locker and we sit on soft cushions." S40: "I wish I was a

principal. I would go to the children, ask their wishes, and consult their ideas. I would also make sure that the sinks are more hygienic." S85: "My ideal school is a place where the lessons and breaks are half an hour and the school is carpeted, that is, like our home." Ö86: "If I were a manager, I would not make school uniforms compulsory. If I were a teacher, I would not give homework, I would only ask my students to read books. It would be great if they took our opinion about the school bell and the uniforms." Ö95: "If I was a teacher, I would take care of my students and try to make the lessons fun." S113: "If I was the headmaster, I would not be angry so that the children would not run away when they saw me. If I were a teacher, I would love my students, listen to their problems and share my problems with them." S115: "Most teachers start writing on the board as soon as they enter the classroom. If I were a teacher, I would chat a little bit and then start the lesson." S121: "There is a room in my ideal school and in this room we can convey all our requests and ideas to our teachers." S128: "If I was a teacher, when I entered the class, I would start the lesson after motivating my students to lesson. Therefore, for the lessons would be more fun." S131: "Our expectation is for lots of trips/excursions to be organized, especially for the 8th grade students to the high schools they want to study." S138: "If I was a principal, I would be a sweet principal who was more interested in students." S139: "If I was a teacher, I would do at least one hour of my weekly lessons by doing a book-reading hour in the library." S141: "If I was a teacher, I would not always teach, sometimes I would sing. I would do extra-curricular activities and make my students happy." S142: "If I was the headmaster, I would opened the wish box every month and fulfill the requests of the students."

#### 4. Discussion and Conclusion

According to the results of this qualitative research conducted in Istanbul scale in order to determine the problems and expectations of Imam Hatip Secondary School students in their schools; it was determined that the students were generally satisfied with their school. As the things that the students are most satisfied with in their schools; they stated that teachers and school management strive for their own well-being, that there is a religious education at school, LGS courses are organized and there are physical facilities such as library, and smart board. There are similar findings in the literature. The students who study at Imam Hatip schools prefer these schools to learn the mostly religious information (Ateş, 2016; Çınar, 2018; Şatır, 2019), and the most important reason for the satisfaction of the students studying in these schools is the provision of religious education (Altundaş, 2019; Çalışkanoğlu, 2018) are the results revealed in the previous research. The students stated the points they did not like in their schools as follows; school uniform is compulsory, mobile phones are forbidden, toilets have cleaning problems, they have to understand too many the lessons. In Imam Hatip Secondary Schools, where male and female students study together, male students said that discrimination was made in favor of girls.

The students stated that they had emotional expectations from their teachers and administrators such as interest and a smiling face. They said that they were very afraid that their teachers and administrators would be angry and yell at them. They stated that they expected their teachers to chat with them before starting the lesson. In the literature, it is emphasized that the middle school period is the period when students are more willing to learn and want to establish a better relationship with their teachers and satisfy them (Aktaş, 2017). Çalışkanoğlu (2018) stated that the most important features that students want to have in their teachers are "sincerity" and "valuing the student"; it expresses that the characteristics of "knowledge", "loving the teaching profession" and "physical appearance" come after sincerity and caring for the student (Çalışkanoğlu, 2018). This is because the negative attitudes of administrators and teachers can cause young people to move away from religion and school in a period when they are sensitive about religious issues, when religious doubts are intensified, and they experience independence and personality confusion (Altundaş, 2019).

The students stated that, thanks to their education at an Imam Hatip Secondary School, they were able to learn religious lessons, memorize the Holy Qur'an, learn from foreign teachers because of the projects such as the language (English-Arabic) projects, and participate in various competitions. They said that they felt closer to their parents because they were studying in this school. They also stated that they were happy in this school; because although it is a religious school, they are not forced to perform some religious rituals such as prayer and hijab. They said that their knowledge increased thanks to the seminars held in their schools and thus they felt more social. They stated that they saw more value in their families and their surroundings thanks to the religious knowledge they learned at school. They expressed that they were very happy that their elders congratulate them when they prayed for food in a guesthouse and brought a "iqama" before prayer. In his study, Terlemez (2019) states that parents who send their child to an Imam Hatip School

are happy when their children perform religious rituals such as praying for food, reading the Holy Qur'an and praying. As a result, the fact that adults say "mashallah" and appreciate them makes the students feel special, and the students are more accepted in out-of-school adult settings (Terlemez, 2019). It can be said that the fact that students love and are interested in lessons related to religious education increases their learning desire and motivation in general (Çiftçi, 2019).

The students said that they wanted to come to school to see their friends and participate in various activities and that the school was more fun than home. Because the influence of peer groups on middle school students is increasing; for students, the peer group is prioritized over their families (Köylü & Nazıroğlu, 2012). In the literature, it is stated that the friendship environment in the school increases the satisfaction of the students (Çalışkanoğlu, 2018), social and cultural activities in the schools, especially the activities carried out in connection with the vocational lessons in Imam Hatip schools, contribute to the socialization of the students and the feeling of "us" between them (Terlemez, 2019). In another study, it is stated that a student who feels accepted in the school environment has a higher motivation to learn and commit to school, and accordingly, the student's school performance and learning process quality increases (Atik & Yerin Güneri, 2015). The students stated that what made them say, "I wish I did not go" is waking up from sleep in the morning and an assignment that has not been done.

The students thought of their ideal principal in a profile that was not angry, gave more classroom hours to the classroom counselor teachers, and frequently listened to students' requests by conducting surveys. Aşlamacı and Eker (2016) state that effective communication opportunities that students will establish with their teachers and administrators will contribute to the formation of a school climate where they will feel happy (Aşlamacı & Eker, 2016). In their study on Project Imam Hatip Schools, Koç and Baştaş (2019) also highlighted that school principals should pay attention to the social relationships, needs and wishes of their students in order to improve the quality of life in their schools and emphasized that schools that can achieve this are more effective (Koç & Bastas, 2019). For the teacher of their ideals, they have drawn a profile that listens to the problems of their students, does not start the lesson immediately, and repeats the subjects they do not understand during recess and makes their students feel precious. In her study, Taş Akarsu (2018) states that secondary school students evaluate the school as a social society before evaluating it as an official and rules institution. In addition, she states that the managements and teachers' approaches to students in the framework of "human values and respect" can make students feel more valuable at school and connect more to their school (Taş Akarsu, 2018).

Most of the students think that the lessons they study will benefit them in the future. They said that this benefit is valid both for the exams they will take in high school and university and for the professions they will perform. They stated that especially mathematics, English and religious lessons would benefit more. There are similar findings in the literature. According to Özyiğit (2018), the idea of students getting a good education and having a good profession as a result is more important in their school preferences than other social opportunities provided by the school (Özyiğit, 2018). In a study about the project schools where education is carried out with more flexible curricula within Imam Hatip Schools, it is stated that the program diversity applied in these schools has a significant contribution to the more effective Imam Hatip schools (Koç, 2019). However, some students are hesitant whether Arabic and technology-design lessons will be useful to them or not. In another study for Imam Hatip Secondary School students, only Arabic was included among the lessons related to religious education amongst the three lessons that the students did not like and had difficulty with (Aşlamacı, 2017b).

The students described the school of their ideals as a school where they can wear the clothes they want, where they would only attend the lessons they wanted, where they had longer breaks hours and more comfortable chairs instead of wooden chairs. Aşlamacı (2017) shares the conclusion that two-thirds of the students who participated in the research found casual clothing positive (Aşlamacı, 2017a).

In the light of these results, various measures can be taken in Imam Hatip Secondary Schools to enable students to connect more with the school. In this context, the following suggestions can be presented:

- Teachers can have short conversations with their students before starting the lesson,
- A casual clothing practice can be applied on certain days of the week,

- Motivation activities can be held for the lessons that the students are hesitant about whether they will benefit them in the future,
- The staff can be more meticulous in toilet cleaning at schools,
- The environments where students can exhibit their religious knowledge alongside adults can be increased,
- In addition, most importantly, school and education can be developed in line with their wishes and needs by holding frequent meetings with students.

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## Participation in Physical Activity and Social Media Addiction in Students\*

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### ABSTRACT

The purpose of this research was to examine participation in physical activity and social media addiction among university students. A total of 462 university students from 3 different universities voluntarily participated in the study. In the study, the "Motivation Scale for Participation in Physical Activity" and "Facebook addiction scale" were used as data collection tools. In the study, the independent sample t-test and One-way ANOVA test were applied for normally distributed data depending on the number of variables. Also, correlation analysis and regression analysis were used. According to the simple linear regression analysis conducted to determine the effect of motivation on participation in physical activity on social media addiction, it was determined that the model established was statistically significant ( $F=70.305$ ;  $p<0.05$ ) and the ratio of explanation of the dependent variable by the independent variable was  $R^2=0.182$ . It was determined that the most important factor that motivates students to participate in physical activity is individualistic reasons. Individualistic reasons were followed by environmental and causality factors, respectively. The results of the study show that students' participation in physical activity and social media addiction was not significantly differ in terms of their gender.

#### Keywords:

Physical activity, motivation, social media, addiction

### 1. Introduction

That the society in which we live has poor knowledge on physical activity, the importance of the physical activity to health is not understood well enough and physically less active lifestyle has been adopted more and more have been one of the crucial causes that increases the prevalence of such chronic diseases in society as obesity, cardiovascular diseases, hypertension, diabetes and osteoporosis (Bek, 2012). Physical activities are described as the activities that are performed in daily life by consuming energy through the use of muscle and joints, elevate the heart and respiratory rate and lead to fatigue of different levels (Baltacı, 2012). The secret of a healthy and fit life is to do physical activity regularly. Due to such reasons as weight control, healthy life, socialization, fight against stress, disease protection, wish to forget daily problems, tendency to keep away from bad habits and to stay away from negative thoughts, entertainment, development of physical identity, using free time, development of healthy lifestyles, desire to increase self-confidence; people may tend to do physical activities. It may be suggested that one's motivational approach plays a key role in not being away from physical activities and the engagement in physical activities (Demir & Cicioğlu, 2018; Eskiler & Küçükbiş, 2019; Gumus et al., 2019; Yılmaz et al., 2019). Although fast advances in technology and the industrialization process have eased life's burdens, with the increased virtual/digital venues, people's physical activity levels have decreased and with the emergence of social media, which let them socialize, time spent on the internet has increased. Desire to socialize with others promotes the internet. The motivations to use the internet, to create an online image, to have fun, and to build interpersonal

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relations are similar to those motivations used to answer needs for humane relations. As emphasized by Papacharissi and Rubin (2000); internet –with its functions in e-mail and online chat rooms- meets people’s interpersonal communication satisfaction (Alioğlu, 2016). Besides, such essential portable electronic devices as smartphones and tablets provide the internet access is one of the factors that produce excessive internet use. According to the Digital 2019 Turkey report published by global social media agents -We Are Social and Hoot Suite (WASH)-; with its 82.4 million population, 98% of the adults in Turkey used mobile phones and 77% of them used smartphones and in the last one year the number of those who used internet increased by 5 million and the number of active social media users by 1 million. In Turkey, in the past one-year internet users spent an average of 7 hours 15 minutes on the internet and 2 hours 46 minutes of this on social media with 52 million social media owners (Wash Report, 2019).



Figure 1. Social Media Overview (Global Digital Report of Turkey, We are Social, 2019).

Meanwhile, social media has been widespread as a popular leisure-time activity. From the old to the young, all segments of society use social media networks excessively, focus on technology more than needed; which –without noticing- triggers inactivity and causes numerous spine and health problems. Excessive use of social media and being addicted to social media without noticing may be an addiction. It may be suggested that most social media users often demonstrate behavior that seems to be an addiction such as continuously checking social media responses given to his/her existence and profile on internet platforms (Kula et al., 2020; Alioğlu, 2016). The studies underline that internet dependency has been going up day by day and people’s tendency to socialize has been going down. A study done in Germany identified 2.1% of the general population as internet addicts, a study in the USA found 26.3% of the university students as internet addicts, a study in Egypt reported 40% of the university students as internet addicts and another study performed in Turkey 2017 showed that 1.6% of the participant students were internet addicts and 16.2% of them were potentially internet addicts (Kara, 2019). That social sharing networks have been very popular and serve to millions of users, users want to keep their virtual milieu under control all the time and people get access to these networks without any income or age barrier has led to a disease called social media addiction (Büyükaslan & Kırık, 2013). Today, many countries have been conducting different studies to combat this disease and taking necessary measures. Physical activity may be a significant argument in combating this disease. Therefore; to know factors that encourage people to do physical activities and to present the correlation of these factors with social media addiction is important. In this context, this study focused on investigating physical activity participation and social media addiction among university students.

## 2. Method

### 2.1. Research Model and Participants

This descriptive study was planned in a correlational survey model to explore the correlation between motivation for physical activity participation (MPAP) and social media addiction (SMA) among university students and in the cross-sectional survey model to explore whether students’ MPAP and SMA scores

differed in terms of gender and academic departments. Descriptive studies are generally undertaken to explore various aspects of the phenomenon, to clarify correlations among the phenomenon under investigation, and to evaluate it in line with the standards. Descriptive studies are the ones that describe the phenomenon exactly and carefully. Survey models are the studies where participants' aspects such as their views or interests, skills, abilities, attitudes in relation to a subject or event are explored and larger samples are generally used as compared to other studies (Karasar, 2009; Büyüköztürk et al. 2014).

The study population consisted of university students studying at the faculties of sports sciences in Turkey while the study sample was composed of 462 students recruited using the convenience sampling method from three different universities. Convenience sampling is not random sampling but involves the sample being drawn from the population that is close to hand according to the criteria set by the researchers. In convenience sampling, data are collected from the close population in the easiest, fastest, and economic manner (Malhotra, 2004, Aaker et al., 2007; Zikmund, 1997). Kinnear and Taylor (1996) reported that convenience sampling is used by 53% in practice. Likewise, Kurtuluş et al. (2004) emphasized that nearly 90% of the studies done in Turkey employed convenience sampling (cited by Haşiloğlu et al., 2015).

**Table 1.** Demographic Characteristics of the Participants

Variables	N	%
Gender		
Female students	233	50.4
Male students	229	49.6
University		
Şırnak University	89	19.3
Gazi University	190	41.1
Mersin University	183	39.6
Academic Department		
Teaching	246	53.2
Coaching	104	22.5
Recreation	112	24.2
Total	462	100

## 2.2. Data Collection Tools

In the study; Demographic Information Request Form, Motivation Scale for Participation in Physical Activity (MSPPA), and "Social Media Addiction Scale" (SMAS) were used.

**2.2.1. Motivation scale for participation in physical activity (MSPPA).** Motivation Scale for Participation in Physical Activity was developed by Tekkurşun Demir and Cicioğlu (2018). The scale consists of 16 items and three subdimensions (internal motivation, external motivation, and non-motivation). Scores between 1 and 16 indicate very low motivation, scores between 17 and 32 low motivation, scores between 33 and 48 medium motivation, scores between 49 and 64 high motivation, and scores between 65 and 80 very high motivation. 3<sup>rd</sup>, 9<sup>th</sup>, 13<sup>th</sup>, 14<sup>th</sup>, 15<sup>th</sup>, and 16<sup>th</sup> items are reverse-scored. The scale is a five-point Likert scale (from strongly disagree 1 to strongly agree 5). Scale's Cronbach's alpha values were 0.941 for internal motivation, 0.931 for external motivation and 0.907 for non-motivation and 0.924 for total scale. The explained variance was 54.695.

**2.2.2. Social media addiction scale (SMAS).** To measure participants' social media addiction, Facebook Dependency Scale was used and the Turkish adaptation of the scale was done by Çam (2012). In the current study; instead of the word "Facebook" "Social Media" was used for the items of the scale. To this end, construct validity was tested using Explanatory Factor Analysis and Confirmatory Factor Analysis whereas construct reliability was tested using Cronbach's alpha coefficients. Different consistency criteria are used to test the consistency of the model in Confirmatory Factor Analysis. According to the Confirmatory Factor Analysis, goodness of fit values were as follows: RMSEA=.50, GFI=.95, AGFI=.94, NFI=.93, and CFI=.97. These values were within the limits of the goodness of fit. In addition to these values, the value of  $\chi^2/sd=1.83<3$  indicated too that the model's consistency was acceptable. The scale consists of 19 items and one dimension. Higher scores indicate high dependency. It was a five-point Likert scale (1: Never; 5:



Always). Scale's Cronbach's alpha value was 0.942 in this current study and explained for 59.42% of the total variance.

### 2.3. Data Analysis

The normality test of the study was tested according to coefficients of skewness and kurtosis and it was identified that the data followed a normal distribution. To analyze the data; descriptive statistics were used and the correlation between MPAP and SMA was tested using correlation analysis. The effect of motivation for physical activity participation upon social media addiction was determined using simple linear regression analysis. Finally; to explore whether or not average MSPPA and SMAS scores differed in terms of the variables of gender and academic department, independent samples t-test and One-way analysis of variance were employed.

### 3. Findings

Table 2 presented participants' MSPPA scores and motivation levels

**Table 2.** Factors that Motivated Students for Physical Activity Participation and Motivation Levels

Variables		$\bar{x}$	sd
MPAP	Internal motivation	26.314	3.58
	External motivation	22.630	4.57
	Non-motivation	17.760	3.11
	Total	66.7035	8.60
MPAP LEVEL		N	%
	Very low	0	0
	Low	0	0
	Medium	16	3.5
	High	141	30.5
	Very high	305	66.0
	Total	462	100

In Table 2, it was found that the most important factor that motivated students for physical activity was internal motivation, external motivation, and non-motivation; respectively. When students' MSPPA scores were examined; it was noted that they generally showed very high motivation.

**Table 3.** T-test Results Related to the Comparisons of Scores of MSPPA and SMAS in Terms of Gender

Variables	Gender	n	$\bar{x}$	Sd	t	p
Internal motivation	Female	233	26.20	3.53	-.678	.498
	Male	229	26.43	3.64		
External motivation	Female	233	22.43	4.73	-.951	.342
	Male	229	22.83	4.41		
Non-motivation	Female	233	17.52	3.07	-1.651	.099
	Male	229	18.00	3.13		
SMA	Female	233	35.02	15.26	1.505	.133
	Male	229	32.82	16.15		

In Table 3, it was found that gender did not create a significant difference in the scores of MSPPA total, its sub-dimensions and SMAS. According to this finding, it may be concluded that MPAP and SMA did not differ among university students in terms of gender.

**Table 4.** Correlation Coefficients between Motivation Scale for Participation in Physical Activity and Social Media Addiction Scale

	SMA	External motivation	Internal motivation	Non-motivation
SMA	1			
External motivation	-.396*	1		
Internal motivation	-.498*	.356*	1	

Non-motivation	-.294*	.361*	.201*	1
MPAP T	-.426*	.321*	.308*	.297*

\*p&lt;0.001

According to the results of correlation analyses; it was identified that the lowest correlation value existed between SMAS and MSPPA-“Non-motivation” sub-dimension whereas the highest correlation value existed between SMAS and MSPPA-“Internal motivation” sub-dimension.

**Table 5.** *The Effect of Motivation for Physical Activity Participation upon Social Media Addiction*

	b <sub>j</sub>	S <sub>bj</sub>	t	p	F	p	R <sup>2</sup>
Constant	1.402	.276	5.086	.001	70.305	.001	.182
MPAP	-0.567	.068	8.319	.001			

Table 5 demonstrated the results of simple linear regression analyses done to explore the effect of MPAP upon SMA. Accordingly; the regression model obtained to explore the effect of motivation for physical activity participation upon social media addiction can be structured as follows. It was identified that the model was statistically significant (F=70.305; p<0.001) and the independent variable explained for the dependent variable by R<sup>2</sup>=0.182. Besides, regression model coefficients were also statistically significant.

$$\text{Social media addiction} = 1.402 - 0.567 \times \text{motivation for physical activity participation}$$

When this regression model was investigated, the model formulated showed that one unit increase in motivation for physical activity participation would produce a decrease of 0.567 upon social media addiction.

#### 4. Discussion and Conclusion

In this study where students' motivations for physical activity participation and social media dependency were investigated, it was found that motivation for physical activity participation of the study group was generally very high. The fact that the study group consisted of the students of the faculty of sports sciences may be the main reason to explain this result. Such factors as students' theoretical and applied courses, their accessibility to sports facilities as compared to the students of other academic departments, education, and training that they received about sports and physical activity may have been the factors that greatly affected students' physical activity participation. Actually, Sarol (2017) stated that the biggest barriers to physical activity participation were structural barriers. Masmanidis et al. (2009) concluded that sports facilities are the most important structural barrier. Similarly; the studies of Öztürk (2019) on university students identified that facilities are an important factor in physical activity participation.

It was seen that the most important factor that motivates students for physical activity participation is “internal motivation” ( $\bar{x}$ =26.317; sd=3.58). “Internal motivation” was followed by “external motivation” ( $\bar{x}$ =22.630; sd=4.57) and “non-motivation” ( $\bar{x}$ =17.760; sd=3.11); respectively. This finding pointed out that individuals paid more attention to their physiological and psychological status than the physical image to be reflected others. Even if studies conducted underlined that external factors are more important in physical activity participation (Asma and Gencer, 2019; Esatbeyoğlu & Karahan, 2014; Gümüş et al., 2017; Payan et al., 2019; El-Bagoury et al., 2017); it was found that individual and personal factors are more important for the students (Guler & Turkmen, 2018) who studied sports sciences; which –we think- may have resulted from their knowledge level about physical activity acquired at their academic departments. The relevant studies reported that as people's knowledge level about physical activity, exercise, and training increases, so does their participation in physical activities (Hanna et al., 2017; Ross & Melzer, 2016; Chen et al., 2017; Santiago et al., 2016). On the other hand; the study group was selected to the academic departments where they studied with special talent tests. For this test; serious preparation was necessary and therefore, this preparation may have led to a change in the students' attitudes towards physical activity.

In the comparison perform among the students in terms of gender, no significant difference was found between SMAS and MSPPA scores; which may be interpreted that being a female student or male student did not change their social media addiction and motivation for physical activity participation. Although many studies were performed in Turkey found significant differences in women's and men's physical activity participations (Alemdağ & Öncü, 2015; Cheah & Poh, 2014; Zaragoza et al., 2011); there are also many studies recently done showing that gender is not a significant variable in physical activity

participation (Çakır, 2019; Tekkurşun Demir & Cicioğlu, 2019; Wuerstl et al., 2019). In the studies that drew attention to gender variable; the difference is mainly on behalf of men and these studies show that women face many barriers to physical activity participation and motivation. These studies reported that the barriers mainly result from society's view of women, problems that women have while they are using facilities and the traditional roles of women (mother, spouse, cook, cleaner, etc.) (Lapa & Korkmaz, 2017; Lopez, 2019; Ayhan et al., 2017; Bulgu et al., 2007; Gümüş & Işık, 2018). However; it is not true to argue that these gender-based differences do matter for today's young generation –called Z generation-. On the other hand; today most cities offer much more advanced physical activity opportunities than they did 20 years ago (Sallis et al., 2016; Rose et al., 2018). Another area where the gender variables did not affect is the use of social media. Many studies performed both in Turkey and abroad emphasized that gender variables did not lead to an important difference in using social media (Zheng et al., 2016; Shim & Stengel, 2017). The common point where these studies agreed was that –as in our study- social media users are very high in both genders. Many studies support this finding (Alt, 2018; Swart et al., 2019; Andreassen et al., 2017). Another common point of these studies was that social media is heavily used due to the desire to spend leisure time. The contradiction related to social media addiction and physical activity participation is that people argue that they spend time on social media because they have free time but the same people tell that they cannot participate in physical activities because they do not have enough free time. This is a point to reflect on and to discuss about.

Today; numerous scientists have emphasized in the studies that the most crucial factor that prevents young people from physical activity participation was digitalization (Pehlivan, 2009; Thompson et al., 2005). Actually; the current study found a negative and moderate correlation between SMA and MPAP. According to the results of the analyses, the lowest correlation ( $r:0.294$ ) existed between SMAS and MSPPA-“non-motivation” sub-dimension in a “weak” manner whereas the highest correlation existed between SMAS and MSPPA-“internal motivation” sub-dimension in a “negative and moderate” manner. This finding brings physical activity forward as an important factor in fighting against social media addiction; about which everybody has lately been complaining and which is thought to cause many physical and psychological diseases in the future.

After the correlation analyses; simple linear regression analyses were done to determine the effect of motivation for physical activity participation upon social media addiction and according to these analyses, the regression model formulated was statistically significant ( $F=70.305$ ;  $p<0.05$ ) and independent variable accounted for the dependent variable by  $R^2=0.182$ . Besides, regression model coefficients were also statistically significant. Accordingly; the model proved that one unit increase in motivation for physical activity participation would produce a decrease of  $-0.567$  upon social media addiction.

As a result; the most important factor that motivates individuals towards physical activities is “internal motivation” and efforts should be made to focus on internal motivation so that participants can be encouraged and motivated to do physical activities. To this end, physiological effects as well as psychological effects of regularly done physical activities upon the human body should be clarified in a more detailed way. Raising people's awareness of physical activity benefits will increase their activity participation and -as presented by the regression model- as people's motivation for physical activity participation is maximized, their social media dependency is minimized. Therefore; if physical activity participation level is elevated, combat against social media addiction will gain big momentum. This study proved the importance of physical activity participation in the struggle against social media addiction -described as a psychological disorder-.

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## The Volunteering Activities of Social Studies Teachers in NGO's and Their Perception of Volunteering\*

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### ABSTRACT

Volunteering can be stated as activities performed for the benefit of the society regardless of the interests of the people. Such activities are of great importance for the strengthening of the social structure. In this study, the activities of social studies teachers in non-governmental organizations and the perception of volunteering were tried to be determined. In this context, the research was carried out in the phenomenology pattern, which is one of the qualitative research methods. The study group of the study consisted of 38 social studies teachers determined by purposeful sampling method. In the study, the data were collected by structured interview form and analyzed by descriptive analysis method. The data of the research were collected in the spring semester of the 2019-2020 academic year. The results of the research: In the definition of volunteering in the study, the most repeated result is the benefit of society, benevolence, and favorable income without waiting for a financial response. It was concluded that volunteering increases solidarity and empathy and improves unity-togetherness and solidarity. In the study, the reasons for the low rate of volunteerism in Turkey unconsciousness, educational shortcoming is that prejudice and politics intertwined. It was concluded that the most needed volunteering activities should be in the fields of education, environment, children and health.

#### Keywords:

Social studies teacher, volunteering, citizenship

### 1. Introduction

Being a virtuous person is highly important. Virtuous people are the individuals not only looking after their own interests but also protecting the interests of others. An important fact for an individual to be able to develop the society of which he is the member is also his voluntary activities. In other words, it is the voluntariness of individual for social welfare. Voluntary activities can be defined as the works done for someone else or a community without expecting anything in return, social collaboration and sharing. The participation of people in voluntary activities improves the young in terms of social participation by enabling them to have a sense of belonging to the society, as well as their self-improvement. In this context, the concept of volunteering, what volunteer activity is, the place of non-governmental organizations in volunteering, and the relevance of volunteering to social studies will be explained.

Faiz (2019) defined volunteering as the attempt of individual by feeling like or by believing it to be true for the benefit of society in order to improve the living standards of other individuals who are out of his family or immediate circle, without concern for financial gain or any expectation of personal benefit, or his support to non-governmental organizations. Ellis (2004) defined volunteering as "helping people", "being a good

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citizen" and "a good way to gain new skill or experience". Ministry for Welfare and Population Development (1997) defined volunteering as providing non-repayable service to a social welfare or development organization and an important human resource used by social foundations and development programs. Patrick (2003) stated that responsible citizens would be aware of the principles and practices of democracy by participating in voluntary activities in their own societies, acting politically in order to achieve public goals, and having moral and civil virtues. Also, the involvement of individuals in voluntary activities enables them to shape and direct their lives and thus, enhances their sense of belonging to their country. Volunteering allows individuals to have a voice in their own country (Leigh et al., 2011). This is also related to the citizenship of individuals. Participation is one of the most important constituents of citizenship. Social participation refers to the participation of an individual in social activities as it aims the common well-being of the individual. Volunteering is a part of social participation (Faiz, 2019).

Voluntary activities can be performed not only individually but also through organizations. These organizations are called non-governmental organizations (NGOs). Özer (2008) regarded non-governmental organizations as non-profit organizations in industrial societies which work on a collective benefit basis and act on a voluntary basis to enlighten and lead the public. Yeramisos (2001) stated that individuals unite and constitute non-governmental organizations in order to achieve the solidarity that will enable them to be more effective on the issues for which they consider themselves as the center of various points of interest and benefit, in the societies that put individual in the center.

When studies on volunteering are examined, it is seen that there are many studies. Accordingly, Johnson, Bebe, Mortimer and Snyder (1998) determined who participated in voluntary activities and how young people had an influence on voluntary activities. Yönten-Balaban and Çoban-İnce (2015) investigated the volunteering activities performed by the young in non-governmental organizations and the sense of volunteering. Stukas, Snyder and Clary (1999) investigated the effects of compulsory volunteering of university students on volunteering intention. Denny (2003) examined the effect of education on volunteering. Hellman, Hoppes & Ellison (2006) investigated the factors related to the intention of university students towards being volunteer. Hyde and Knowles (2013) researched what predicted the volunteering intention of the Australian university students and the motivation and limitations of the students for volunteering. Francis (2011) examined the norms and functions leading university students to volunteering. Son and Wilson (2012) investigated the effect of religion and education on volunteering. Akatay, Kıray and Özdemir (2016) examined the effect of NGO training on the sense and intention of volunteering and participation of university students. Faiz & Dönmez (2017) examined the perception of volunteering of the individuals with different ethnicities. Çakmak-Barsay (2019) investigated the voluntariness of the candidates in Health Manpower. Demirci, Erbaş and Giderler-Atalay (2009) investigated participation potential of university students to the 'NGOs within the organizational citizenship behavior to civic virtue.

Social studies is an interdisciplinary course that includes many disciplines. This lesson aim to help students acquire citizenship skills, solve problems they may encounter in life, and acquire the necessary knowledge about life. The fact that the individual is an effective citizen includes the awareness of the problems faced by the society in which he finds himself and trying to solve it. Volunteering of an individual in solving social problems is related to her/his social participation (Faiz, 2019). As we have stated before, voluntary activities can be defined as a part of social participation. Social participation ensures the belonging of individual to the state. Thus, volunteering serves as a bridge between the state and society. Volunteering is also an important step towards becoming a democratic society. As it can be understood from here, since social studies aim to raise active citizens, volunteering is directly related to both citizenship and social studies. The effect of Social Studies teachers on future generations is undeniable. Social studies teachers have an important place in raising active citizens. Volunteering is also important for active citizenship as it is a part of social participation. In this respect, it is very important to examine the volunteering activities of social studies teachers and to determine their perception of volunteering. In addition, since previous research was not done with teachers, this study was required. This study differs from other studies in this aspect. The problem statement of the study can be stated as:

What are the volunteering activities of Social Studies teachers and their perception of volunteering?

Sub-Problems:



1. What is the status of social studies teachers to participate in non-governmental organizations?
2. What are the three of the most important elements in the definition of volunteering according to social studies teachers?
3. What benefits do volunteering activities bring to the society / young / children according to social studies teachers?
4. What are the three most important reasons of the low rate of volunteering in Turkey according to social studies teachers?
5. What are the perceptions of social studies teachers about young people's participation in voluntary activities?
6. What are the areas of volunteering activities needed mainly in Turkey, according to social studies teacher?

## 2. Method

### 2.1. Research Model

In this research, phenomenology that is one of the qualitative research methods was used. Phenomenology is a research design which aims to reveal the experiences of individuals that are related to a particular phenomenon (Creswell, 2014). In the research, phenomenology design was used since the social studies teachers answered the research questions by using their own experiences.

### 2.2. Study Group

Social Studies teachers who were in different cities of Turkey and agreed to participate in the research voluntarily constituted the study group of the research. Purposeful sampling was used in the research. Purposeful sampling means specifying a group that fits best for the problem to be studied as the subject of observation (Sencer, 1989). 43 feedbacks were received in total. 5 of them were excluded from the scope of study group because of the incomplete information given and the answers left blank. Totally 38 teachers were included in the study group.

**Table 1.** Demographic Information of the Participants

Age Range	f	%	Years of Seniority	f	%	Gender	f	%
23-30	14	35,9	5-10	22	56,4	Female	16	41,0
31-35	8	20,5	11-15	6	15,4	Male	22	56,4
36-40	11	28,2	16-20	6	15,4	Total	38	100
41-45	4	10,3	21-25	4	10,3			
45 and above	1	2,6	Total	38	100			
Total	38	100						

Considering the demographic information of the social studies teachers participating in the research, the age range is 23-30 for 14 participants, 31-35 for 8 of them, 36-40 for 11 of them, and 41-45 for 4 of them and 1 of them is at the age of 45 and over. 22 of them 5 to 10 years, 6 of them 11 to 15 years, 6 of them 16 to 20 years, and 4 of them have 21 to 25 years of seniority. 16 of the participants are female and 22 of them are male.

### 2.3. Data Collection

The data of the research were collected in the spring semester of the 2019-2020 academic year. It took about a month to collect the data. While determining the interview questions, the researcher benefited from the questions that Yönten-Balaban and Çoban-İnce (2015) used in their article. The name of article is "Youth Voluntary Activities in Non-governmental Organizations and Perception of Volunteerism: Example of Educational Volunteers Foundation of Turkey (TEGV)". Six questions were asked to determine the activities of teachers and their perception of volunteering. The questions were prepared by Google docs and data were collected via e-mail, whatsapp and facebook.

### 2.4. Data Analysis and Interpretation

The data obtained in the research were analyzed by descriptive analysis. In descriptive analysis, it is aimed to present the obtained findings to the reader in a summarized and interpreted form. The data obtained are organized according to the previously determined framework (Yıldırım & Şimşek, 2003). The documents obtained from the answers of the teachers were named as P1, P2, P3, ..... P38 and their sexes were specified as M, F. After this process, a descriptive analysis of each question was made. Each question is coded according to its similarities and differences. Coding enables hierarchical editing of data in the analysis process, while also enabling to divide these codes into categories and subcategories (Glesne, 2013). These codes were brought together according to their similarities and differences and categories were created.

### 2.5. Validity and Reliability

Validity in qualitative researches refers to the situation when the researchers, participants and readers understand the same thing in the same way as a result of the analysis of data (Creswell, 2016). In this study, validity was tried to be provided by giving a detailed explanation of the analysis of the data obtained and teacher opinions related to the findings. Reliability in qualitative researches is explained as reviewing the obtained data by more than one coder and reaching a consensus in case of dissenting (Creswell, 2016). Patton (1990) explains analyst triangulation as the encoding and stratification of data and the completion of category development process by two or more researchers. In this research, the data were analyzed separately and findings were compared. A consensus was reached by discussing the issues on which the researchers did not have similar views. Also, the categories created by the researchers were compared and the percent agreement was calculated. Percent agreement shows the reliability level in qualitative researches. It is recommended that the rate of percent agreement which was formulated by Miles and Huberman (1994) should be close to 80%. In this research, the categories created by the researchers were compared and the same categories were determined as consensus and different categories as dissent, and reliability calculation for each question was made separately. According to this, the percent agreement was calculated 87%.

### 3. Findings

The answers given to the questions asked to the participants in the study were tabulated. The answers given by the participants and relevant interpretations were presented below.

#### 3.1. Findings Related to the First Sub-problem:

“What is the status of social studies teachers to participate in non-governmental organizations?”

**Table 2.** Participation Status of the Participants to NGOs

Participation	f	%
None	22	48,88
TEMA(The Turkish Foundation for Combating Soil Erosion, for Reforestation and the Protection of Natural Habitats)	6	13,33
Education Related Unions	6	13,33
AFAD(Ministry of Interior Disaster and Emergency Management Presidency)	2	4,44
Yes		
TEGV(The Educational Volunteers Foundation of Turkey)	2	4,44
Other- İlk yardım(Aid Foundation For Primary Schools), Bal-Türk(Balkan Turks Solidarity And Culture Association), Human Rights Association, Turkish Red Crescent, İZDAK(İzmir Mountaineering Club) LOSEV(Foundation For Children with Leukemia, Eğitim-İş(Laboure Union of the Laboure's of Education and Science)	7	15,55
Total	45	100

While 22 of the participants are not the members of NGOs, 16 of them are members. The participants with a membership are mostly the members of TEMA, Education Trade Unions and AFAD.

### 3.2. Findings Related to the Second Sub-problem

“What is the three of the most important elements in the definition of volunteering according to social studies teachers?”

**Table 3.** According to the Participants, the three Most Important Elements in the Definition of Volunteering

Opinions of Teachers	f	%
Benefit of society	15	16,48
Helpfulness	14	15,38
Sincerity	8	8,79
Willingly	8	8,79
Solidarity / Unity	7	7,69
Not to expect a material response	7	7,69
Sacrifice	5	5,49
Effective citizenship / responsibility	5	5,49
Pragmatism	4	4,39
Empathy	3	3,29
Goodwill	3	3,29
Pity	3	3,29
Sharing	2	2,19
Allah's sake	2	2,19
Happiness	2	2,19
Awareness	2	2,19
Entrepreneurship	2	2,19
Other (Purpose, Why, Social Equality, Health, Belief in Righteousness, Hope, Sincerity, Time, Positive Approach, Interest)	9	9,89
Total	91	100

Participants mostly focused on the benefit of society and helpfulness. That was followed by sincerity, willingly, solidarity/unity and no materialistic expectation in return as the most repeated elements. As it can be understood from here, according to the participants, volunteering is regarded as a help which is for the benefit of society, is given by feeling like and voluntarily, requires self-sacrifice and is given with no thought of personal gain. Moreover, four participants evaluated volunteering as one of the elements of becoming an active citizen.

Example quotation for:

“Benefit of society”; P10, F. *“Benefit of society, entrepreneurship, active citizenship”*

“Helpfulness”; P5, M. *“Goodwill, helpfulness and feeling of sharing”*

“Sincerity”; P3, M. *“Not to expect a material response, sincerity, benefit of society”*

“Willingly”; P21, M. *“Optionally, public benefit, solidarity”*

### 3.3. Findings Related to the Third Sub-problem

“What benefits do volunteering activities bring to the society / young / children according to social studies teachers?”

**Table 4.** According to the Participants, Volunteering Activities Bring to Society/ Youth /Children

Opinions of Teachers	f	%
Unity / Solidarity	16	14,24
Helpfulness	11	9,79
Awareness / Sensitivity	8	7,12
Belonging	6	5,34
Empathy	6	5,34
Sharing	5	4,45
Effective citizenship	4	3,56
Problem solving	3	2,67
Be good people	3	2,67
Tolerance	2	1,78
Expression ability	2	1,78
Social skill	2	1,78
Self Confidence	2	1,78
Social justice	2	1,78
Cooperation / division of labor	2	1,78
Happiness	2	1,78
Other (Hopeful, Strong society, Interests, Values education, Excitement, Success, Psychological resilience, Peace of mind, Compassion, Sacrifice, Sensitivity, Knowledge, Experience)	13	11,57
Total	89	100

Participants emphasized that volunteering activities brought mostly being in unity, helpfulness, value of solidarity and sensitivity, sense of belonging to society, and ability to empathize to the society / young / children. As it can be seen, some values and skills included in social studies curriculum can be gained to the individual through voluntary activities. It was also emphasized that individuals engaging in voluntary activities would be active citizens. Additionally, it was stated that volunteering activities enabled the individual to gain personal skills.

Example quotation for:

“Unity/solidarity”; P1, F. *“It plays an important role in ensuring unity and solidarity, and helping the ones in need.”*

“Helpfulness”; P3, M. *“It increases the values of helpfulness and solidarity of individuals. It allows people to understand how important making a contribution, even if it is a little, to the lives of people is.”*

“Awareness”; P24, F. *“More sensitive individuals are raised. At the same time, volunteering activities provide individuals with qualifications such as knowledge, experience, tolerance, sharing and taking responsibility.”*

### 3.4. Findings Related to the Fourth Sub-problem

“What is the three most important reasons of the low rate of volunteering in Turkey according to social studies teachers?”

**Table 5.** *The Three Most Important Reasons for the low Rate of Volunteerism in Turkey according to the Participants*

Opinions of Teachers	f	%
Lack of knowledge / information	8	8,6
Education	7	7,52
Prejudice	7	7,52
No financial interest	7	7,52
Irresponsibility	7	7,52
Selfishness	7	7,52
Intertwined with politics	6	6,45
Unconsciousness	5	5,38
Laziness	4	4,3
Considerable / unnecessary	4	4,3
Social relationships are weak	3	3,22
Lack of trust	3	3,22
Lack of time	3	3,22
Not to be promoted	3	3,22
Economic	3	3,22
Not to make life style	2	2,15
Lack of human emotions	2	2,15
Empathy	2	2,15
Community pressure	2	2,15
Other (Not reaching the goal, unfairness, abstentions, aids hidden, flirting, unemployment, future anxiety, priorities are different)	8	8,6
Total	93	100

As the reason for the lack of volunteering activities in Turkey, participants mostly stated that people did not have enough knowledge on voluntariness, that adequate education on volunteering was not provided, that people were prejudiced against voluntary activities, that people had materialistic expectations in return of the favor, that people were irresponsible and selfish, and also, that people did not want to join in the non-governmental organizations since the most NGOs in Turkey were highly engaged with the politics. In fact, considering these answers, it is seen that volunteering is misunderstood in society.

Example quotation for:

“Lack of knowledge” ; P10, F. *“No, because we are not conscious enough about this issue. In our age, which prioritizes the individual rather than social benefit, young people continue their lives within the framework of their own living space. People who are more interested in technology and social media express their thoughts more easily through social media. Associating civil society institutions with political parties or ideologies causes people to distance themselves from non-governmental organizations.”*

“Prejudice” ; P14, F. *“Fear of being blacklisted, tendency to conspiracy looking for another secret plan behind the organizations, not to be supported socially”*

“No financial interest” ; P5, M. *“ People refrain from doing unrequited work. We can say that the negative point of view of volunteer activities of some sections of the society and the insufficiency of the training programs for the prejudice activities.”*

### 3.5. Findings Related to the Fifth Sub-problem

“What are the perceptions of social studies teachers about young people's participation in voluntary activities?”

**Table 6.** *Volunteering Status of Young People according to the Participants*

Participation	Reason	f	%
Yes		6	10,34
	Selfishness	12	20,68
	Other Efforts	7	12,06
	Unaware	6	10,34
	Future anxiety	6	10,34
	Using technology incorrectly	4	6,89
No	Time	4	6,89
	Education is inadequate	2	3,44
	Lack of unity feeling	2	3,44
	Unconsciousness	2	3,44
	Other (Political party, irresponsibility, shyness, society closed, social media, lazy, disrespectful)	7	12,06
	Total	58	100

32 of the participants think that young people do not spend time on voluntary activities. According to them, this is due to that young people are selfish, tend to take up other hobby or interests and have anxiety for future. As it is seen, according to the participants, young people cannot spare time for voluntary activities mostly because they are insensitive or indifferent and study more due to their future anxiety.

Example quotation for:

“Future anxiety” ; P17, M. *“No. Future anxiety of the young and not having enough knowledge on these topics”*

“Selfishness” ; P33, F. *“Unfortunately, no. The youth thinks the world revolves around them. The ones who have not suffered do not attempt to remediate. They are not aware.”*

“Awareness”; P14, F. *“I do not think. Because today most of our young people are raised with exam anxiety, they prefer to do things that are useful to themselves rather than developing sensitivity to their environment. This causes them to take on a selfish personality.”*

### 3.6. Findings Related to the Fifth Sub-problem

“What are the areas of volunteering activities needed mainly in Turkey, according to social studies teacher?”

**Table 7.** *The Most Needed Volunteer Activity Fields according to the Participants*

Opinions of Teachers	f	%
Education	23	26,43
Environment	18	2,68
Children	11	12,64
Health	8	9,19
Natural Disasters	5	5,74
Animal	3	3,44
The poor people	3	3,44
The old People	3	3,44
Nature	2	2,29
Women’s Rights	2	2,29
Social Help	2	2,29
Other (Disabled citizen, patriotism, values education, respect to	7	8,04

human, NGOs, theme, global warming)

Total	87	100
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Participants stated that there was a need for volunteering activities mostly on education, environment, children, health and natural disasters. Some of the participants also added that those areas of activity were interrelated and could not be thought separately.

Example quotation for:

“Education”; P6, M. *“Of course, education comes first. So, it is very important to enable individuals to gain awareness towards environment, animals, the elders, etc. within educational activities.”*

“Education, children”; P15, M. *“The tree bends when it’s wet. I think that education is based on the word. But not only education at school, but also education by parents at home is part of it. Our aim is to raise volunteer individuals for the benefit of society and humanity.”*

“Environment”; P35, M. *“Environment and nature. As I experience the negative effects of the nature we consume rapidly, I think that studies should be done in this field.”*

#### 4. Discussion

With this study, the opinions of social studies teachers about volunteering and their participation status were determined. In addition, their observations about the participation of young people and individuals in voluntary activities were determined. Since this study is a qualitative study, it cannot be generalized, but it can give us a detailed idea. Thus, it can also contribute to the improvement of existing participation situations.

Considering the results obtained in the study, participants associated volunteering mostly with the benefit of society, helpfulness, having no materialistic expectation, giving help willingly, unity and solidarity that are the concepts included in the definition of volunteering. In the study carried out by Yönten-Balaban and Çoban-İnce (2015), it was seen that helpfulness and love were given in the answers. This result is similar to the findings obtained in this study. In another study carried out by Faiz and Dönmez (2017), volunteering was defined by the participants in the sense of civic engagement, becoming socially beneficial, and feeling of belonging to society. The answers in this study also show that the participants regard volunteering as an action taken on the basis of the benefit of society and helpfulness, without any expectation, willingly and in solidarity / unity and solidarity.

In this study, the participants were asked about what volunteering brought to the individual. Based on the answers given by them, it was concluded that volunteering enabled individuals to gain the concepts of being in unity, helpfulness, the value of solidarity and sensitivity, the feeling of belonging to society and to improve the ability to empathize with people better. Yönten-Balaban and Çoban-İnce (2015) reached that it enabled to gain communication skill, increased the feelings of love and responsibility, instilled self-confidence and love. In the study by Faiz and Dönmez (2017), it was concluded that volunteering would contribute to personal development, enable individuals to feel belonging to the community in which they led their lives, and enable them to gain sense of responsibility. Coşkun (2012) stated that voluntary activities brought the values of patience, love, respect, helpfulness, responsibility, integrity, sensitivity, mercy, safety and tolerance. Voluntary activities ensure to gain the feelings of belonging and civic solidarity, positive changes in self-image, helpfulness (Omoto, Snyder, & Berghuis, 1992), social responsibility and social orientation (Oliner & Oliner, 1988), and self-worth and social respect (Snyder & Omoto, 1992). Feelings of self-efficacy arise from volunteering (King, Walder, & Pavey, 1970; Omoto & Snyder, 1990; Scheibe, 1965). Some certain values and skills included in both this study and social studies curriculum can be gained to individual through voluntary activities. Also, the levels of active citizenship of individuals will increase when they perform volunteering activities.

Participants were asked about the reason why the volunteering activities in Turkey were little. When the answers given to this question were considered, they stated that people did not have adequate knowledge regarding volunteering, that they did not receive enough education in volunteering, that they were prejudiced against volunteering activities, that they had materialistic expectations in return of the favor, that individuals were often irresponsible and selfish, and also that they did not want to join in the NGOs in Turkey since most of them were engaged in politics. Yönten-Balaban and Çoban-İnce (2015) stated that the

rate of volunteering was low due to the reasons such as inadequate information on the volunteer concept and indifference resulting from unawareness, lack of sense of responsibility among individuals, insensitivity, regarding voluntariness as loss of time since there is no materialistic return, expectation of financial benefit in return for effort, laziness, and the perception that non-governmental organizations advocate a political and religious opinion. This is almost the same as the result of our research. Although 5 years have passed, no change can be seen. Akatay, Kıray and Özdemir (2016) stated that education was very important in order to raise awareness towards voluntary activities in individuals. Raising awareness among individuals is related to informing individuals.

Participants were asked about whether the young participated in voluntary activities and 32 participants stated that they did not. That the young people were selfish, took up other points of interest and had an anxiety for future was stated as the reason. Yönten-Balaban and Çoban-İnce (2015) stated in their study that people did not spare time to voluntary activities and it resulted from the lack of knowledge / information related to voluntary activities. This result also supports the result of our research. Individuals should be provided with the education to establish the awareness of volunteering. Also, Yönten-Balaban and Çoban-İnce (2015) stated that the individuals with future anxiety were more likely to engage in activities providing benefits to them. Kesgin (2016) stated that volunteering activities were little because of the reasons such as the self-orientation of individuals, the organizational structure of the NGOs, the weight of educational costs and therefore, the obligation to work outside besides the study at school, not having enough time for volunteering and because of the negative point of view towards volunteering. However, in the study carried out by Çakmak-Barsay (2019), it was concluded that young people performed voluntary activities.

Participants were asked in which areas volunteering activities should mainly be carried out. Accordingly, they stated that there was a need for volunteering activities on education, environment, children, and health and children. Additionally, some of them explained that those areas were directly related to each other and would not be considered separately. A similar result was also found in the study by Yönten-Balaban and Çoban-İnce (2015). It was focused on education, children and environment. Also, some of the participants believed that the volunteering activities to be increased in education would have an effect on other areas.

22 of the social studies teachers are not the members of NGOs, 16 of them are members. The participants with a membership are mostly the members of TEMA, Education Trade Unions and AFAD. Demirci, Erbaş and Giderler-Atalay (2009) found that college students NGO participation rate in Turkey was below average. Erdoğan and Uyan-Semerci (2017) found that 12% of the population in Turkey participate any NGO members. This puts Turkey has made fifty-fifth from sixty-five countries surveyed. According to another study, 15.8% of CSOs participate in the country, while only 6% are members of NGOs (Çarkoğlu & Aytac, 2016). According to another study, while the participation rate to NGOs (5.3%) is the non-participating group (94.6%) (Şahin & Akboğa, 2019). As can be seen from here, NGO membership in Turkey is quite small. There are several reasons for the low level of being members of NGOs in Turkey. Economic difficulties, people not being interested in civil society activities and not trusting NGOs are among these reasons (Çarkoğlu & Aytac, 2016). The reputation score attributed to NGOs is 6.1 out of 10. However, as people associated in Turkey, NGOs, democratization, there was inadequate transparency and the ability to represent the demands of society (YADA, undated). The trust between individuals is quite low in Turkey is another reason (Kalaycıoğlu, 2002). The presence of CSOs is of vital importance in the public's ability to intervene in decision-making on matters of concern and therefore to guide decision-making mechanisms (Karakurt & Tosun, 2007). NGOs are also of great importance in the establishment of democracy.

Young people or individuals should be informed on voluntary activities and their awareness should be raised. Informing may be performed by means of panel, conference, and etc. In order to encourage the young to perform voluntary activities, the volunteering activities they have participated in may be scored in their curriculum vitae for recruitments. Job holders may also be honored. If this process is followed for a while, it may be easier to make voluntary activities permanent within the society. Necessary time for volunteering should be arranged. Individuals should be provided with the opportunities to perform volunteering activities. Voluntary activities may be included in each stage of the level of teaching and thus, individuals may gain several important values and skills as well as their personal development. Teachers can be made conscious about being a member of NGOs. Inter-disciplinary studies done on volunteer activities in Turkey, because volunteering is a concept that should be handled as a single discipline.



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## Investigation of Happiness Levels of Physical Education and Sports College Students\*

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### ABSTRACT

This study aims to examine the happiness levels of physical education and sports college students studying in Konya, Burdur, and Ankara. A total of 229 students, 64.6% female, and 35.4% male, participated in the study in the 2019-2020 academic year. The "Oxford Happiness Scale" developed by Hills and Argyle (2002) and adapted into Turkish by Doğan and Çötök (2011) was used as a data collection tool in the study. Percentage distribution and frequency values of the students participating in the study were determined by descriptive statistics and skewness and kurtosis test was applied as the normality test. Due to the normal distribution of the data, the independent samples t-test and ANOVA test, which are parametric tests, were applied ( $\alpha = 0.05$ ). According to the findings obtained in the research; In the comparison made between the genders of the students, a significant difference was observed between the groups in favor of female. In the comparison made according to the age variable of the students, it was observed that there was a significant difference in favor of 19-year-old students. It was found that there is a significant difference in the comparison made between the sports purposes of the students. Another finding is that there is a significant difference between students' living a healthy life variable and their level of happiness. However, in the comparisons made according to the social life variable of the students, it was found that there was no significant difference between the groups. As a result, it has been determined that the happiness levels of physical education and sports college students are significantly effective according to their goals of engaging in sports.

#### Keywords:

Sport sciences, physical education, happiness, students, sport

### 1. Introduction

The overall aim of education is undoubtedly to enable developing individuals to adapt to society in a healthy, happy, and effective way (Varış et al., 1998). To achieve this harmony, when we look at the programs implemented in schools, we see that general and specific objectives have been determined and some arrangements have been made in this direction; In this context, it should not be ignored that educational institutions have an important place in the process of realizing educational objectives and gaining values to students. Accordingly, although there is not a definite consensus on what values to teach students, the values to be taught in school culture and the values that are expected to be transformed into behavior, love, respect, honesty, benevolence, patriotism, independence, solidarity, as well as happiness which is the subject of our study (subjective well-being) can be listed as (Acun, 2018).

Determining the happiness levels of university students is an important factor. Happiness is closely related to self-improvement, enrichment of personal life, and reaching its goals. Happiness can be defined as pleasure and joy taken from life, as well as perceiving their situation, feeling good, and enjoying life in the

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system of individuals' culture and values. Within the scope of happiness, people's psychological states, physical functions, social relationships, interactions with the environment and beliefs take part (Arslantaş et al., 2006). In this direction will be qualified to contribute to the literature by researchers at the happiness concept point is thought to work with physical education and sports sciences students of the owners should be happiness levels greater detail in the importance of the work done in the name of trying to define. When the literature was examined, it was seen that many studies on happiness were done in the field of working and job, and it increased the need for more studies in different fields. It is a known fact that physical education and sports, which is one of these areas, have an impact on healthy living. Inevitably, it will positively affect the happiness of individuals their healthy life. In some studies, conducted in this field, it has been stated that sports can be evaluated as an auxiliary factor in increasing happiness levels. However, literature reviews show a limited written descriptive study on the determination of the happiness levels of individuals in the field of physical education and sports or the happiness levels that should be shown at the appropriate performance level. Some studies on this subject often emphasize that the subject should be examined from different angles (Okçu & Pilatin, 2018). With this study, which aims to examine the happiness levels of physical education and sports college students studying in different provinces, it is thought that it can be of great importance in raising the happiness levels that contribute to the success and performance of students in educational institutions.

### **1.1. Happiness**

Although the concept of happiness, which is an important subject for people dating back centuries, has been tried to be understood and defined by many people, its definition is a quite wide and difficult notion to explain. Happiness as definition; It is the word of felicity derived from the root of Arabic said, a tendency that people want and do not want to give up (Sevindik, 2015), feeling good, enjoying life (Layard, 2005), positive emotions are more than negative emotions (Argyle, Martin & Crossland, 1989; Diener, 1984), such as statements are based on psychological processes that include individual values and goals (Agid et al., 2012). Also, Aristoteles happiness as the ultimate purpose of human life, Plato as the best one, Freud as the fulfillment of desires to have a healthy and happy spirit and Descartes as spiritual satisfaction and inner pleasure defined (Kaya, 1983; Gökberk, 1996; Özgen, 1997; Kara, 2010).

When the concept of happiness, which is also called subjective well-being, is evaluated in general, it is explained with three variables that are interrelated but examined independently. These are positive emotions more often, and negative emotions less frequent and life satisfaction (Myers & Diener, 1995). People experience a high level of subjective well-being, that is, happiness when they experience too many positive emotions or little negative emotions, do remarkable activities, have joy or low levels of suffering, and are satisfied with their lives (Diener, Gohm, Suh & Oishi, 2000).

Happiness; defined as a positive assessment of a person's overall quality of life (Veenhoven, 2000). The concept of happiness is an important value throughout the lives of all individuals, and individuals aim to achieve happiness. In psychiatry, studies have been conducted on negative concepts such as anxiety, anxiety, and stress, and fewer studies have been conducted on positive concepts such as happiness (Tuzgöl, 2004).

Happiness, besides feeling good, provides many benefits. According to the findings obtained as a result of scientific research, it has been determined that happy people make friends, happy people have better health, their immune systems work better, and enjoy interpersonal relationships. Besides, happiness, which is expressed as the state of satisfaction and pleasure, is closely related to the self-realization, the best use of its potential and strength, achieving better gains, finding meaning in life and leading a virtuous life (Lama & Cutler, 2009; Stein & Book, 2003; Köydemir & Mısıır, 2015).

According to Martin Seligman, the factors that determine the individual happiness level are understanding of happiness, living conditions, and voluntary activities. Seligman formulates the level of happiness as the sum of these three understandings (Seligman, 2002). Also, Sonny Lyubomirsky, who has many types of research on happiness, revealed his happiness levels in percentiles. According to him, the level of happiness determined by birth or genetics constitutes 50% of happiness. Conditions such as marriage, earnings, or appearance determine 10% of happiness. The back 40% of happiness means that it comes from deliberate activities or what we can do to change our level of happiness (Lyubomirsky, 2008).

Individuals' positive emotions such as joy, trust, hope, and joy are living more than negative emotions such as anxiety, sadness, anger in anticipation about the future, and life satisfaction in business and private life can be expressed as an indicator of happiness (Eryılmaz, 2011). Other factors that affect the level of individual happiness are the conditions that the individual is in. Some conditions such as geographical location, culture, social support, work, education, health, gender affect the level of happiness of the person (Carr, 2016).

Some experts have suggested that having money can also be effective in determining the level of happiness. However, no universal truth has been found on this issue. Because studies have found that poor people are happier as they escape from poverty, but once they deprived them, the link between money and happiness is broken (Lyubomirsky, 2008). It has been determined that the richness of the person is not a function that increases happiness. The situation that created this has been linked to the desire of people to always want better. Because after people adapt to the materials they have, they want the better from those materials. So the more people earn, the more they tend to want. This situation prevents the person from being happy with what they have and causes him to constantly strive to achieve the better (Frey & Stutzer, 2002; Veenhoven, 1991).

Happiness is not to have some material things. A bigger house, more luxury car, more money, fame, authority, etc. things are tools to be happy in the short term; but it is not happiness itself and it never replaces happiness. Their deprivation can be painful, but its existence cannot guarantee happiness (Biçer, 2016).

According to Uslu, happiness is about knowing and cannot realize realistic actions to be happy without knowing what happiness is (Uslu, 2018). Veenhoven explains happiness as the experience process of life. According to him, happiness is continuous in a short time and cannot be spread permanently throughout life (Veenhoven, 2000). Happiness provides a healthy mind, gives strength to resist events, and increases endurance, improves the capacity to cope with trauma (Lama & Cutler, 2009). The happiness which has an important place for human life to determine of relation with sports for a healthy life is important in terms of contributing to the literature on this subject.

## **1.2. Relationship between Sports and Happiness**

In the regulation of today's social life, both physical and mental health level is important in terms of social harmony. In this context, sports should be seen as a very important factor for the social life of individuals (Şahan, Akpınar, Ulukan & Akpınar, 2008). Also, the adaptation of the individual to the society, an effective method used to increase the discipline, morale, and motivation that contributes greatly to the psychological and physiological development, tastes the feeling of winning and losing, and enhances the motivation of a game that gives happiness to the individual, and is a form of presentation bound by the rules (Kat, 2009). Sport is a pedagogical, biological, and social field of activity that develops its physical activity and motor skills in mental, spiritual, and social behavior within certain regulations and aims to use these qualities within certain rules (Koludar, 1988). Accordingly, happiness, which is accepted as one of the reasons that encourage people to do sports; appears to benefit individuals physically and spiritually.

Since the past, people have been constantly seeking happiness (Annas, 1993; Gilman, Huebner & Laughlin, 2000). The reason for this is that the individual's desire to be happy has an important place among the basic needs of human life and increases the characteristics of happy individuals such as success, performance, life satisfaction and subjective well-being (Sarıçam & Canatan, 2015). It is accepted that competing or competitiveness which is inherent in sports, generally develops from the motivation of success and performance. The focus of the need for success theory is that some individuals get higher satisfaction than success based activities (Tiryaki & Gödelek, 1997). In this context, it is thought that the reason for the increase in the happiness levels of individuals who do sports is related to their success due to their performance in the field of sports. Moreover, it is known that it triggers happiness life of healthy.

As seen in happiness research, it is seen that happy people are healthier than unhappy, they get more satisfaction from life, they have high creativity, and they are very successful in interpersonal and emotional relationships. According to research results, it is known that happiness has positive effects on people (Aksoy, Aytar & Kayter, 2017). Happiness, which is supported by individual abilities, social and personal

resources, appears to affect physical competence. Physical fitness is seen as an essential factor in individuals' healthy lives. It is known to affect happiness in a healthy life.

Happiness, which is supported by individual abilities, social and personal resources, appears to affect physical competence. Physical fitness is seen as an essential factor in individuals' healthy lives. It is known to affect happiness in a healthy life.

## **2. Methods**

In this section, information was given about the research model, participants, data collection tool, and data analysis.

### **2.1. Research Model**

The research is a study in the survey model. Survey models are research approaches aiming to describe a situation that exists in the past or still as it exists. The event, individual or object that is the subject of the research is tried to be defined in its conditions and as it is. No effort is made to change or influence the variables in any way. There is something to be known and is there. The important thing is to be able to "observe" and describe it appropriately (Karasar, 2005).

### **2.2. Participants**

The participants of the study are 229 students studying at the Physical Education and Sports College in Konya, Burdur and Ankara were included in the study group. The concept defined as the community in which the research results are interpreted is called the universe. (Büyüköztürk et al., 2012). The universe of the research conducted in this context is the students studying at Physical Education and Sports Colleges in Konya, Burdur, and Ankara. The group that takes place in the universe and is researched and generalized to the universe is called the sampling (Büyüköztürk, 2017). The sample of the study consists of 229 students who were determined the doing active sport in Physical Education and Sports College in Konya, Burdur, and Ankara by using the "Simple Selectionless Sampling" method. Participants answered the Oxford Happiness Scale on a volunteer basis.

### **2.3. Data Collection Tools**

**2.3.1. Personal information form.** Within the scope of the study, a personal information form was created for a demographic evaluation of students studying in a university situated to the Ankara, Burdur, and Konya. The form aimed to collect information about physical education and sports college students' gender, age, the purpose of sports, social life, and healthy life carried out.

**2.3.2. Oxford happiness scale.** In the study, Oxford Happiness Scale, which was originally developed by Hills and Argyle (2002) to measure happiness, and it is adapted to Turkish by Doğan and Çötök (2011) was used as a data collection tool. The Oxford Happiness Scale has one sub-dimensions, 7-item, and 5-point Likert type. Statements 1 and 7 are reversed. The lowest score that can be obtained from the scale is 7, and the highest score is 35. The increase in the scores obtained from the scale indicates a high level of happiness in the individual (Hills & Argyle, 2002; Doğan & Çötök, 2011). Also, Cronbach alpha was calculated for the whole scale as .76.

### **2.4. Data Analysis**

Within the scope of the research, the data obtained from the measurements were tried to be evaluated by using the SPSS 25 program. The happiness scores of the students in the research group were evaluated by considering the characteristics of the data in line with the independent variables. In this context, independent samples t-test was used for groups with two different independent variables, and the ONE-WAY ANOVA test was used for groups with 3 or more independent variables. Also, personal characteristics, frequency, and percentage values were analyzed. In the research, the level of significance was accepted as  $\alpha = 0.05$ .

## **3. Results**

In this section, the findings obtained from the analysis of the research data are presented in the tables and interpreted. The findings obtained from the study were evaluated by the total scores obtained from the

Oxford Happiness Scale used in the study and investigations were made according to the variables accepted as independent variables. The distribution of students in the study group is given in the table below.

**Table 1.** *Physical Education and Sports College Students' Frequency and Percentage Analysis*

Variables	N	f	%
Gender	Female	148	64,6
	Male	81	35,4
Age	18	119	52,0
	19	31	13,5
	20	48	21,0
	21	31	13,5
	Self-improvement	64	27,9
Purpose of Sports	Healthy life	82	35,8
	Vocational career	18	7,9
	Participating in Socio-cultural Activities	25	10,9
	Personal skill and ability	32	14,0
	Other of them	8	3,5
Social Life	Participating in Social Activities	148	64,6
	Those who do not want to participate in social activities except for mandatory situations	58	25,3
	Never Participating in Social Activities Including Mandatory Cases	23	10,1
	Yes	108	47,2
Healthy Life	No	34	14,8
	Partial	87	38,0

As seen in Table 1, it is determined that 64.6% of the students participating in the research are women and 35.4% are men. Looking at the age distribution of the participants; It was determined that 52% were in the age category of 18, 13.5% were in the category of 19.21% were in the category of 20 and 13.5% were in the category of 21. The purpose of doing sports is personal development with 27.9%, 35.8% healthy life, 7.9% professional career, 10.9% participation in socio-cultural activities, 14.0% personal skills and abilities, and 3.5% was found to be in the other category. When the distribution of social life was analyzed, it was determined that 64.6% were in the category of participation in social activities, 25.3% of them did not want to participate in social activities except compulsory situations, and 10.1% did not participate in social activities, including compulsory situations. Finally, when looking at the distribution of healthy living, it was determined that 47.2% was in the category of yes, 14.8% of them were in the category of no and 38%.

Happiness levels of the students participating in the research are given below according to gender.

**Table 2.** *Happiness Levels according to the Gender Variable of the Students Participating in the Research Subtest Independent Examples T-Test Results*

	Gender	N	$\bar{X}$	SD	t	p
Happiness	Female	148	22,27	5,459	0,825	0,003*
	Male	81	19,91	6,004		

As seen in Table 2, it was determined that the happiness levels of female (N = 148) students  $\bar{X} = 22,27 \pm 5,459$  and the happiness level of male (N = 81) students  $\bar{X} = 19,91 \pm 6,004$ . It was found that the happiness levels of the students participating in the study differ significantly in favor of females ( $t = 0.825$ ;  $p < 0.05$ ). Also, it can be said that the happiness levels of the students participating in the research area in the middle level.

The happiness levels according to the age variable of the students participating in the research are given below.

**Table 3.** Happiness Levels according to Sports Age Variable of the Students Participating in the Research Subtest ONE-WAY ANOVA Test Results

	Age	N	$\bar{X}$	SD	F	p
Happiness	18	119	23.17	5,131	16,347	<b>0,000*</b>
	19	31	23.29	4,360		
	20	48	18.08	5,873		
	21	31	18.09	5,491		
	Total	229	21,43	5,756		

As seen in Table 3, as a result of the comparisons made between age groups, it is determined that there is a significant difference between the happiness levels of the athletes participating in the research. ( $F = 16.347$ ;  $p < 0.05$ ). It was observed that this difference was in favor of 19-year-old students ( $\bar{X} = 23,29 \pm 4,360$ ).

The happiness levels of the students participating in the research are given below according to the purpose of doing sports.

**Table 4.** The Happiness Levels according to Purpose of Sports Variables of the Students Participants in the Research Subtest ONE-WAY ANOVA Test Results

	Purpose of Sports	N	$\bar{X}$	SD	F	p
Happiness	Self-improvement	64	20.12	5.708	2,378	<b>0,040*</b>
	Healthy life	82	21.59	5.402		
	Vocational career	18	19.72	6.560		
	Participating in Sociocultural Activities	25	21.80	6.557		
	Personal skill and ability	32	23.75	5.370		
	Other of them	8	23.75	3.770		
	Total	229	20.12	5.706		

As seen in Table 4, it includes the results of comparisons made between the groups of sports purposes. ( $F = 2.378$ ;  $p < 0.05$ ). It has been observed that this difference is in favor of students doing sports for personal skills and abilities ( $\bar{X} = 23,75 \pm 5,370$ ).

The happiness levels of the students participating in the research are stated below according to the healthy life variable.

**Table 5.** The Happiness Levels according to Healthy Life Variables of the Students Participating in the Research Subtest ONE-WAY ANOVA Test Results

	Healthy Life	N	$\bar{X}$	SD	F	p
Happiness	Yes	108	22,22	6,259	6,680	<b>0,002*</b>
	No	34	18,23	5,303		
	Partial	87	21,71	4,839		
	Total	229	21,43	5,756		

As seen in Table 5, it is seen that there is a significant difference between the happiness levels scores of the students who participated in the research as a result of the comparisons made between healthy living groups ( $F = 6,680$ ;  $p < 0,05$ ). It was observed that this difference was in favor of students who stated that they lived healthily.

The findings of happiness levels according to the social life variable of the students participating in the study are given in the table below.



**Table 6.** Happiness Levels according to the Social Life Variable of the Students Participating in the Research Subtest ONE-WAY ANOVA Test Results

	Social Life	N	$\bar{X}$	SD	F	p
Happiness	Participating in Social Activities	148	21.30	5.726	0,453	0,636
	Those who do not want to participate in social activities except for mandatory situations	58	21.34	5.756		
	Never Participating in Social Activities Including Mandatory Cases	23	22.52	6.089		
	Total	229	21,43	5,756		

As seen in Table 6, as a result of comparisons between social life groups, there was no significant difference between the happiness levels scores of the students participating in the study ( $F = 0.453$ ;  $p > 0.05$ ).

#### 4. Discussion

In this study, happiness levels of 148 females, 81 males, 229 students in physical education, and sports college were examined in terms of different personal variables, and the happiness levels of students were tried to be explained.

When the findings obtained from the research are examined; according to the gender variable, there was a significant relationship between the groups according to the scores they received from the physical education and sports college students who participated in the study ( $p < 0.05$ ). It has been observed that this difference is in favor of women. It is thought that this is due to the higher number of female participants. In most of the literature scans, it was found that males were slightly happier than females, though with a slight difference (Diener, Suh, Lucas & Smith, 1999). Again, many studies examining the effect of gender on happiness were found that female happier than men (Wood, Rhodes & Whelan, 1989). In a study conducted in this field, it was found that there was no significant difference. In this case, it is concluded that gender difference does not have a determining effect on happiness (Wood, Rhodes & Whelan, 1989; Diener, Ryan, 2009). In their study, Eroğlu and Parlar (2018) concluded that, contrary to our findings, the gender status variable does not make a significant difference in perception of happiness (Eroğlu & Parlar, 2018). In the master's thesis by Yazgeç (2019), there was no determined significant difference between gender and happiness (Yazgeç, 2019). It is seen that the results of these studies do not support the results of our study.

In the study, according to the age variable, there was a significant relationship between the groups according to the scores they got from the happiness scale ( $p < 0.05$ ). It has been determined that this difference is in favor of younger students. It can be said that the reason for this is happiness arising from delightful feelings such as winning the university and settling in the area they want. In some studies or opinions on the impact of happiness on age, young people were found to be happier than the elderly, in some studies, it was determined that the elderly were happier because they had more experience and success. Again, a different view in this area; an increase in the rates of happiness at a young age, decrease in happiness rates in middle ages and it was determined that happiness gets regained as the age gets older (Conceicao & Bandura, 2008; Tan, Tambyah, Kau, 2006; Blanchflower & Oswald, 2004).

According to the variable of the purpose of doing sports in the study, it was determined a significant difference between the groups according to the scores they got from the happiness scale ( $p < 0.05$ ). It has been determined that this difference is in favor of participation in socio-cultural activities, healthy life, and personal development. In this context, it can be said that the students give importance to their quality of life. It can, also, be said that individuals are aware of the importance of doing sports for a healthy life. While many studies support that sports have positive effects on happiness, there is not a found study examining the effect of the purpose of sports, which is a more special concept, on happiness.

In the study, it was seen that there was a significant difference between the healthy life variable and happiness levels of the students ( $p < 0.05$ ). As a result of the analysis, it was seen that individuals who lead healthy lives are happier than those who stated that they do not lead healthy lives. As a result of the

literature surveys, similar studies are supporting our study. In the master thesis by Mumcu (2019), it was found that those who felt very good in the general health perception category had higher levels of happiness than those who stated that they did not feel well (Mumcu, 2019). It was observed the result of this study is similar to the result of our study. In the literature, it was stated in a similar study that individuals who exercise regularly lead a healthy life and therefore feel happy (Llyod & Little, 2010). Again, in a different study, the effects of regular exercise on the health and happiness level of individuals were investigated and it was stated that recreational exercises such as cycling or walking had positive effects on the health and happiness levels of individuals (Rascute & Downward, 2010). In another study examining the concepts of well-being and happiness, it is stated that there is a significant increase in the levels of well-being of individuals who regularly participate in fitness and yoga exercise groups (Mochon, Norton & Ariely, 2008).

However, it was found that there was no significant difference between the groups in the comparisons of the scores of the students participating in the study from the happiness scale according to the social life variable ( $p > 0.05$ ). The variable of social life was examined as participation in social activities, not wanting to participate in social activities other than compulsory situations and not wanting to participate in social activities, including compulsory situations, and it was found that social activities did not affect happiness. It is thought that this is because most of the participants did not participate in social activities. As a matter of fact, since the situation of not wanting to participate in social activities is due to the individual's own will, it did not affect the happiness levels of the people. As a similar study, according to the findings obtained in a study conducted by Özdemir et al., there was no significant difference between happiness and self-perception of social life (Özdemir et al., 2018). As a result of the literature review, there are not many studies between social life variables and happiness.

## **5. Conclusion**

In this study, happiness levels of 148 female, 81 male, 229 students in physical education, and sports college were examined in terms of different personal variables, and the happiness levels of the students were tried to be explained according to different variables.

As a result of the research, it was determined that the happiness levels of the students of physical education and sports college were at a medium level. It was determined that the happiness levels of female students participating in the research were higher than male students.

As a result of the comparisons made between the age groups of the students participating in the research, it was determined that there was a significant difference between the happiness levels of the students. It was determined that this difference was in favor of 19 years, old students. Also, it was observed that younger students had higher levels of happiness than older students. As a result of the comparisons between the aims of doing sports, it was determined that there was a significant difference between the happiness levels of the students who participated in the research. It was determined that the difference was in favor of students doing sports for the aim of personal skills and abilities. It can be said that the happiness levels of students who do sports for personal skills and talent have higher happiness levels than those who participate for other purposes. Also, it was observed that the level of happiness of the students who purposeful participation in socio-cultural activities, healthy life, and personal development was medium-level. As a result of the comparison between the perception of healthy life and happiness level of the students participating in the study, it was observed that there was a significant difference between happiness levels scores. It was determined that the participants who stated that they had a healthy life had a higher level of happiness compared to those who stated that they did not have a healthy life.

As a result of the comparison between the social lives and happiness levels of the students participating in the research, it was observed that there was no significant difference. However, when the average scores of the students were examined, it was determined that the happiness levels of the students who did not participate in social activities, including compulsory situations, were higher than those who participated in social activities.

## **6. Suggestions**

Suggestions that can be presented with the idea of contributing to future research to contribute to science; Comparison can be made by determining the happiness levels of students between physical education and

sports programs. By observing the relationship of students' happiness levels with different scales, parameters affecting happiness can be determined. It can be examined in terms of different variables. It may be thought that the renewal of the research in different and larger samples may contribute to the development of the information on the subject and to make generalizations.

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## Action Research in Integration of Immigrant Students in the Classrooms of Torreblanca Secondary School\*

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### ABSTRACT

Thanks to the intercultural training of secondary school teachers, it has been possible to improve the inclusion of immigrant students in school classrooms. Reality shows that greater attention to this type of student by teachers, as well as by other colleagues, considerably improves their academic success. It also favours greater personal development within the socio-environmental context in which they live. The Erasmus + Quammelot project, after planning and executing a specific training course for Secondary Education teachers, includes the results obtained in several Spanish schools, among them the IES Torreblanca. These results have been obtained attending to the personal and academic needs of immigrant students. This work gathers the main results obtained in three of the didactic interventions developed along the eight modules that compose the training of the participating teachers. Throughout these three didactic proposals, information units have been collected referring to the learning of the attitudinal dimension at an initial moment (M1) and at the end of each proposal (M2). After the analysis of the information obtained, it has been possible to verify that the motivation, interest and participation of the students improves notably, regardless of whether or not they are immigrant students.

Keywords:

Immigrant students, proposals for didactic intervention, secondary education, teacher training.

### 1. Introduction

The Erasmus+ Project called "Online Training of Secondary School Teachers as Educators and Tutors of Immigrant Students" (Qualification for Minor Migrants Education and Learning Open Access - On-line Teacher-training / Reference: 2017-1-IT02-KA201-036610) which responds to the acronym of QUAMMELOT, is a European project located within the school sector and its main objective is to work to improve the educational and social inclusion of immigrant minors in general and unaccompanied minors (MENA) in particular. One of the specific strategies chosen to achieve this objective has been to design, apply, evaluate and propose in a sustainable way, an online course addressed to secondary education teachers, training them as educators and teachers of reception and inclusion of foreign minors and MENAs in secondary schools in the four countries participating in the project, Italy, Spain, Greece and Denmark. This course has promoted training with a view to reconciling teachers' regular work in schools with the time devoted to this new training. As teachers have access to the platform where the content of the modules, the materials and resources designed, as well as various documents and videos are hosted, they have been able to tackle this training progressively and with the necessary flexibility. Moreover, at all times, they have had the support

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and advice of tutors specialized in the subjects they have worked on (Moreno-Fernández, Ferreras-Listán, Guichot-Muñoz & Puig-Gutiérrez, 2019).

From this training received and the activities developed during it, research has been developed within the so-called Action Research paradigm (Ander-Egg, 2003). Some of the principles that govern this research methodology are that the ultimate goal of the study is the transformation of the problem-situation, which in our case is to improve the attention of immigrant students as well as to improve their integration in the classroom. In addition, a dialectic between knowledge and action must be established, promoting the active participation of the population involved, as well as demanding forms of communication between equals. That is why teachers must put into practice the training received in their own classrooms, with their students. To this end, in our case, activities are proposed where all participants have an active and shared role. In addition, it implies an elective and declared commitment of the researcher with the people involved in the program and who participate in the study and transformation of their own reality (Ander-Egg, 2003; Fredericks, 2011; Johnson, & West, 2018).

Studies and research on curriculum integration have provided a wealth of scientific literature that has highlighted the benefits of working with topics close to the needs and interests of students (Beane, 2013). These topics make it possible to open up an overly closed curriculum around academic issues and provide benefits in terms of learning of all kinds, both for students and for the professional development of the teacher.

On the other hand, Etxeberria & Elosegui (2010), point out that the discourse on intercultural education tends to be more optimistic than the reality represented by trends, attitudes, legislation or the academic results of immigrant students. Teachers and educators face the difficult task of solving problems that are much more complex than mere schooling seems to imply. Thus, immigrant students encounter obstacles related to learning the host language, academic performance, social acceptance by their peers, or active participation in activities inside and outside the classroom (Steinbach, 2010; Etxeberria & Elosegui, 2010; Sinkkonen & Kyttälä, 2014). Difficulties in establishing friendships with classmates and experiences of social isolation according to Steinbach, (2010) generate a lack of authenticity in the learning of the host language and therefore an increase in school failure.

Classes and tutoring programmes have been set up in secondary schools, and many proposals have even been put forward to encourage intercultural school relations. However, no systematic attempts have been made to approximate how this change occurs to the intercultural awareness of students and their perceptions of immigrant colleagues through a participatory methodology. Therefore, the main objective of the research was to understand the extent to which a change in attitude towards tolerance and acceptance of peers from other cultures and nationalities was generated. In this regard, the research aimed to obtain some evidence of how attitudes and values can be worked on through participatory activities. These activities are based on the students' own interests, so that they become more meaningful and more positive results can be obtained with regard to attitudinal change. In this way, the study sheds some light on students' perception of the process of changing attitudes towards their peers with an immigrant background.

Torreblanca Secondary School is a secondary education centre located in a suburban area of the city of Seville. In this neighbourhood, we find certain problems of marginalization and social exclusion that are attended to by different entities such as the "Blas Infante" Civic Centre, with a large assembly hall, library and activity rooms, the neighbourhood health centre, or the primary and secondary education centres.

Torreblanca Secondary School is a "Preferential Attention Centre" that receives both students from the neighbourhood and from a refugee reception centre located nearby. The educational offer is very diverse, since in addition to teaching Compulsory Secondary Education (minors aged between 13 and 16), there are also classes in Baccalaureate (Science, Humanities and Social Sciences), and various modules of Vocational Training related to the family of personal image (hairdressing, aesthetics, cosmetics, etc.), the family of transport and vehicle maintenance (bodywork, electro mechanics, vehicle maintenance, etc.), and the family of administration and management (administrative management technician). This educational mix means that the school's students come from very different social and economic backgrounds in the neighbourhood and surrounding areas.

## 2. Method

### 2.1. Research Model

After the experimentation of the activities described, data were recorded for a research and evaluation follow-up of the intervention. In this way, we can say that the study took the form of an action research in which the teacher was both an observer and a participant in the events. He recorded, with a series of instruments that will be describe later, the results in terms of learning from the experimentation of activities. This strategy is also consistent with a long tradition of research to improve teaching practice itself (Pareja y Pedrosa, 2012; McCoy, 2013; Oolbekkink-Marchand, van der Steen & Nijveld, 2014; Pineda-Alfonso, 2017)

### 2.2. Participants

The participants were two groups of 2nd year students (n=53) from Torreblanca High School in Seville, a preferential attention centre located in a neighbourhood on the outskirts of the city of Seville (Spain) with problems of coexistence and social exclusion. These are adolescent students who in some cases showed attitudes contrary to the integration of their immigrant peers, some of them coming from a refugee reception centre that the municipal authorities have located in the vicinity of the neighbourhood. The participants were coded as follows: T(eacher) and S(tudents) following the order of the class list S1, S2, S3 etc.

### 2.3. Organization of data: category system Data Collection Tool

From a methodological point of view, although our research is situated within the field of qualitative studies, we have incorporated certain elements and techniques more typical of the rationalist paradigm. This category system is an adaptation of another used in previous research on attitudinal change in high school students (Pineda-Alfonso, 2017). In addition, it has been validated by 3 experts from the Department of Educational Research Methodology (MIDE) of the Faculty of Educational Sciences of the University of Seville.

Thus, we have established a system of categories (Heiman, 2011) and a hypothesis of learning progression. We thus place ourselves in a strategy of complementation and in a multi-methodological perspective that characterizes many of the investigations in education (Creswell, 2012). There are three dimensions of analysis or categories covered by this study. These dimensions refer to conceptual change, procedural change, and attitudinal change as part of comprehensive student learning. In this work we focus on the dimension referring to the change of attitudes with respect to tolerance and to the coexistence with other cultures. With respect to the progression in *learning in the attitudinal dimension* (LAD), we have established a hypothesis of progression with three values (LAD1, LAD2 and LAD 3).

We should point out that the progression hypothesis is a proposal regarding the possible evolution in the construction of student knowledge on a given subject. In this way it is possible to establish different levels of formulation of this knowledge following a gradual progression from the simplest to the most complex of it (García-Pérez & Porlán, 2000). In the attached table (Table 1), the descriptors for each of the values are specified.

**Table 1.** Categories, Levels of Progression, Variables and Descriptors of the LAD Dimension

Levels	Variables	Descriptors
LAD1:	Attitude of rejection towards other cultures	The different is conceived as a danger, they show behaviours of avoidance to work with the immigrant partners and even of frank rejection.
LAD2:	Attitude of supreme tolerance	Other cultures are tolerated while maintaining a Eurocentric and supremacist conception of Western culture. They work with their immigrant colleagues with a certain amount of mistrust.
LAD3:	Differentiation as an opportunity to learn	Interaction with other cultures is seen as an opportunity to learn



## 2.4. Data Collection Tool

The following instruments have been used to carry out the data collection:

- 1) Investigator's diary (ID)
- 2) Students' productions (SP)
- 3) Open questionnaire passed in two moments, at the beginning (IQ) and at the end of the intervention (FQ)

Data collection was carried out in two methodological stages, following the technique of quasi-experimental designs with pre-test and post-test. The first moment of data collection has been called "M1" and was previous to the intervention. The second moment of data collection was called "M2" and was carried out at the end of the intervention.

The information obtained through the various data collection instruments has been processed using "content analysis" techniques (Krippendorff, 2013). These data have been codified and converted into information units using the values of the LAD category

Finally, it has been possible to code 750 information units that were managed with the Atlas.Ti program, in order to obtain a classification of these units that will allow us to respond to the problem under investigation. The statistical treatment for the correlation analysis between the progressions in attitudinal learning was carried out using the SPSSV24.0 software.

## 2.5. Activities Carried Out

Below are some of the activities carried out with the students of Torreblanca Secondary School, with the intention of responding to the problems of integration and welcoming immigrant students, following the procedures, guidelines and learning acquired during the development of the training received through the Quammelot project.

**2.5.1. Activity 1- Artistic exhibition in the educational centre itself.** The aim of this activity is to explore the forms of artistic and creative expression, as an expression of feelings, moods and worldviews that make up our culture. In addition to trying to teach students how to express themselves creatively, we have tried to work as a team and develop citizenship skills related to the integration of people. To this end, new colleagues from other countries were added to each work group, thus enhancing their socialization.

We also tried to work on new concepts and words related to artistic expression and digital skills, since some of the murals, collages and compositions made were treated digitally.

Thus, to the extent that students carry out creative work with autonomy, thus making their own decisions, we are fostering a sense of commitment and responsibility, both to ourselves and to others.

With regard to the development of this activity, they focused on pop art and urban street art, graffiti, collage, photographic composition, etc. The integration of "the word" in artistic composition was expressly sought through slogans and phrases related to the theme of composition. This also served to give students who had recently arrived in Spain the opportunity to enrich their vocabulary. An exhibition of contemporary art was visited in the neighbourhood's Civic Centre, which has a specific room for temporary exhibitions. We also carried out an urban inventory in the neighbourhood to study urban art and especially graffiti, which is the most attractive form of plastic art for students, and we even had some graffiti artists among them. Then, five working subgroups were formed, in which the newly arrived foreign students were integrated. Some classmates were appointed as assistants and tutors to the newcomers, using peer support as a resource for the integration of these new students. Each group gave one or more previous sketches of the work that they were going to develop to the teacher, to agree among all, the definitive subject of the same one as well as the best way to develop and to execute the definitive version of the work. Finally, it was decided that the exhibition of the works would be held throughout the centre: corridors, hall, stairs, etc. The exhibition has become part of the decoration of the school, in addition, some students have become guides for other colleagues from other courses to show and explain the work done (see image 1).

With regard to the themes addressed, two of the groups, in collaboration with the Department of Coeducation, have worked on an exhibition on women's rights and against gender violence. The other two groups, in collaboration with the Department of Plastic Education, have worked on environmental care and recycling.

The debate on the choice of art forms was intense, although many students wanted to have made graffiti, the school management did not authorize it and it was necessary to opt for the elaboration of posters. The formation of work groups did not present any difficulties, although the preparation required numerous meetings with the groups to establish coordination between them, the distribution of work, and actions to favour the newly arrived students, who did not speak Spanish well.

It should be noted that, given the playful and participatory atmosphere of the activity, coordination was generally very good and attitudes towards the new colleagues from different countries were also very positive. With regard to productions that have resulted from the activity, we would like to highlight some interesting creations, such as the use of elements of the building to construct metaphors, as in the case of the staircase decorated with slogans.



**Picture 1.** Photographs of the art Exhibition of the Posters and Slogans of the Art Workshop in the Facilities of Torreblanca Secondary School.

**2.5.2. Activity 2- Chess workshop in the Torreblanca Secondary School.** Chess has in its practice a set of values that give it a very appropriate field of action to learn the equality of opportunities, respect, friendship, justice, autonomy, critical thinking, responsibility, perseverance, effort, passion, illusion, etc.

There are scientific foundations that recommend the practice of chess to everyone, especially to children, also to older people, and even to promote inclusive education, as attested by the study entitled "The benefits of chess for the intellectual and socio-emotional enrichment in schoolchildren" (Aciego, García and Betancort, 2012). Everything researched in relation to its positive repercussions shows that it favours the capacity to understand situations and to solve problems, increase attention, perception, speed, concentration, approach

and foresight, improve the creativity and the critical sense of the student, the verbal aptitudes, the spatial and numerical abilities, develop the reading comprehension and for all the above mentioned the academic performance.

Therefore, in the Torreblanca Secondary School it was decided to create a chess club, with the intention of teaching any member of the educational community (students, teachers, PAS, families) to play chess, developing the basic knowledge in the rules, techniques and strategies that are typical in the different phases of the game. In addition, the aim was to develop logical-mathematical skills and the vocabulary associated with the game of chess, as well as to encourage collaborative work and mutual help, thus working on social and civic competence. For this purpose, a stable group of students was formed who found in chess a reason to feel linked to the educational centre, developing the sense of belonging that so many benefits bring to coexistence and academic performance. Furthermore, the fact of facilitating the constitution of a chess club, aims to provide the participation in chess competitions and the organization of these in the educational centre itself, thus giving a greater projection of the students of the educational centre.

From a methodological perspective, the activities of the Chess workshop were conceived as a process of participation that is structured around a driving group that acts as a catalyst for the initiatives, ideas and proposals of the educational community. The learning of the community through its own transforming action generates a space of permanent formation for the participants, achieving a greater integration on the part of the students who feel excluded because of the language or have different customs, since the game is independent of the mother tongue or the political, religious beliefs, etc.

The workshop is aimed at the entire educational community and participation is voluntary, but we have used it specially to encourage the integration of foreign students who have recently arrived at the centre. The previous school experiences of these students is very heterogeneous, as some come from Eastern Europe and have experience in mathematical calculation and logic, and even have a good level as chess players. Others, however, have only very rudimentary knowledge and skills in mathematical calculation and logic, and some do not know the rules of the game.

The Chess workshop has had a very positive impact on the integration of the school's immigrant students and the peer tutoring has been very positive. It has improved relations between the students and has favoured interactions both during the playing sessions and in the rest of the class time. The participation in an activity that, although within the school schedule, has had a recreational component, has been another element to consider for the integration of the newcomers (see image 2).

In addition, the situations during the game have made it possible to use new words and expressions related to it that have improved linguistic competence in the new language, Spanish. We also consider that the chess sessions have had a positive impact on the development of the logical-mathematical competences, both of the immigrant pupils and of the Spanish ones. In particular we have put special emphasis on the calculation of variants of the game, that is to say, given a determined position the capacity to mentally calculate the possible movements of the opponent and the best possibilities of response.



*Picture 2.* Photographs of the chess club at Torreblanca Secondary School.

**2.5.3. Activity 3- Debate club in the Torreblanca Secondary School.** Another of the activities developed in the centre has consisted of a debate club developed during the month of October. The main objective of this club is to achieve the collaboration and cooperation among the students when it comes to reaching a consensus and elaborating the arguments that will later be presented during the debates. It has also greatly facilitated working on language, as the main vehicle for arguing the theses of the discussion groups.

In a first phase, during three working sessions the debate was prepared, deciding in those sessions the rules of the game and the possible topics to be discussed. Finally, most of the students voted that they wanted to discuss the rules of organization and functioning of the Secondary School itself. They wanted to discuss which ones they thought were fair and which ones were unfair, how the rules had been broken, whether they agreed with the method used, etc. They were especially concerned about the question of entering and leaving the centre and the strict control to which they felt subjected, as well as some prohibitions that seemed absurd to them, such as not taking mobile phones to school.

Subsequently, the class group was organized into two working subgroups, one in favour of the rules that the centre has already established and the other against them. Each subgroup was placed to one side of the classroom according to their initial position and two students were placed in the centre of the case to act as referees and moderators of the debate, managing the rules that had been previously agreed in the preparatory sessions.

The debate took place with a remarkable degree of participation, since the topic chosen is of great interest to the students. As for the management of participation (interruptions and compliance with the rules of the debate), we can say that the preparatory sessions were quite disorganized, with constant interruptions and murmurs that made it very difficult to follow the discussions. However, in the final session, which was recorded on audio and video, the compliance with the rules of debate and conflict management and the discrepancy in it has been much more positive. The experience has been very rewarding, both for the students and the teacher. In fact, the intention is to adopt this discussion procedure more regularly in the classroom. The activity allows a subgroup to become the "devil's advocate", which can be a difficulty at first. If this circumstance is managed correctly, it becomes a potential that provides students with perspective to understand different opinions.

The arguments presented by the working groups are as follows:

In favour:

- 1) Young people need rules to be sociable. Limits are necessary to be managed in a social context.
- 2) If there were no rules it would be chaotic, you could not keep up with the activities of the class.
- 3) As far as mobiles are concerned, prohibition is good as it prevents harassment and also avoids cheating on exams. Another problem generated by the mobile phone is the photos without permission of people who then upload to the Internet.

Against:

- 1) We are tired of such strict rules, we must count on the students, because without participation we don't feel connected to them. These are rules that are made by an authority in an arbitrary way without counting on us.
- 2) For example, the use of the mobile phone is necessary in many cases as a tool in the classroom, not everyone misuses mobile phones. Moreover, new technologies are already present in all areas of life and we have to learn how to use them.

In the videos obtained during the debates, the strategy of conflict management through debate and democratic deliberation is highlighted. We can distinguish a first moment of emergency from the conflict; the teacher deliberately provokes it by threatening the students not to leave the classroom if they do not agree on the sport they are going to play. This invites students to express their conflicting and sometimes selfish interests, since they do not take into account the interests and play possibilities of other people. The teacher sets as a condition for playing the game that everyone agrees on an integrated game that excludes no one and this leads them to engage in discussion. Some children conceive the game as something that inevitably forces them to win; however, the teacher points out that it is not about winning but about developing a game that involves them all.

Some of the educational potentialities observed by the teacher during the development of this activity have been:

- 1) The development of citizenship skills related to the handling of discrepancies, respect for all opinions and learning to listen to different opinions.

- 2) Argumentation: Not only does an opinion exist, the groups have worked prior to the debate to construct arguments and develop a rigid opinion based on evidence.
- 3) The value of diversity. The groups have experienced how we can learn if we are able to work collaboratively, as each brings different perspectives on the same topic that enrich the whole.

### 3. Results

#### 3.1 Quantitative Analysis

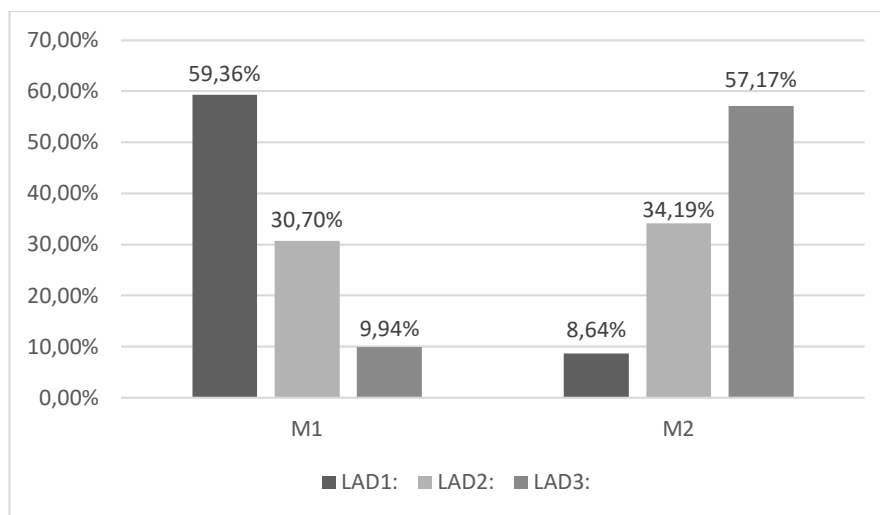
To manage the mass of data we have used 886 information units, which have been processed with the program in Atlas.Ti. We offer below the count of these information units in each of the three values of the progression hypothesis and in the two moments of data collection in absolute values (table 2). The Table 3 shows the percentages of the information units referred to the times of collection. Finally, Figure 1 shows the percentages of appearance of the information units according to the values of the category and the time at which they were issued

**Table 2.** Attitudinal Information Units in Absolute Values

Levels	M1	M2	cumulated value
LAD1:	203	47	250
LAD2:	105	186	291
LAD3:	34	311	345
TOTAL	342	544	886

**Table 3.** Attitudinal Information Units in Percentages

Levels	M1	cumulated percentages	M2	cumulated percentages
LAD1:	59,36%	59,36%	08,64%	08,64%
LAD2:	30,70%	90,06%	34,19%	42,83%
LAD3:	9,94%	100,00%	57,17%	100,00%
TOTAL	100,00%		100,00%	



**Figure 1.** Longitudinal Evolution of Attitudinal Learning (LAD).

As we can see in the previous figure (Figure 1) at the initial moment (M1) the information units corresponding to the learning in the attitudinal dimension of LAD1 value - those with a lower level of complexity and related to the rejection of other cultures -, are predominant reaching 59.36%. At the same

time, a small number of information units of LAD3 value (9.94%) appear, since they represent a level of evolution and complexity that is incompatible and opposite to the predominant attitudes in the initial repertoire of our students. However, in the final moment (M2) the amount of information units of both values shows an inverse trend which indicates a great change in the learning in the attitudinal dimension (LAD1= 8.64 vs LAD3=57.17).

### **3.2 Qualitative Analysis**

**3.2.1. The initial state of attitudinal learning (LAD1).** In what follows, we present the characterization of our students' attitudes illustrated with examples of prototypical information units. In value 1 of the progression (LAD1), the one with the lowest level of complexity, we observe attitudes and behaviours in the students that are not very favourable to the integration of immigrant colleagues.

[During the realization of the Artistic Exhibition]

T(eacher): Try to get M. to join your working group

S(student)12: He doesn't do much to integrate

T: He doesn't understand our language very well and feels excluded

S33: Well, that's not our problem. [DI-3-11-2019]

These behaviours and attitudes correlate with some of the responses to the initial questionnaire that indicate prejudices towards other cultures: What do you think students from other cultures can bring to our community?

S25: I think that here we already have what we need, in fact we are the ones who can contribute something to them, and rather they can be a competence at work (IQ).

[During a chess session]

S29: Teacher, this is a waste of time, I don't think these people are interested in chess; they just come here running away from their country (DI-12-12-2019)

**3.2.2. Transition attitudes and behaviours (LAD2).** These values of progression indicate that a certain disposition to understand the other and a certain tolerance are beginning to occur, while maintaining a supremacist and paternalistic idea. The immigrant is no longer perceived as a danger, but rather attitudes are shown in favour of condescending help. In this value, there is no open rejection behaviour; the students are in favour of collaborative work, although with a certain distrust.

(What do you think students from other cultures can contribute to our community?)

S7: I don't think they can contribute anything at the moment, what they need is our help.

S18: I think that rather than thinking about what they can contribute, we should consider what we can do for them. They come here because their countries are poor and backward and we have a duty to help them.

S48: Our immigrant colleagues really contribute little in the group work, they are more of a weight, but it is our obligation to help them and maybe later they can contribute something.

**3.2.3. The progression of students' attitudes towards desirable goals (LAD3).** The most valuable and complex attitudinal information units indicate that not only is tolerance shown towards other cultures, but that interaction between cultures is conceived with a certain cultural relativism. This opens up the possibility of a new appreciation of diversity that makes it possible to learn from others and to learn from what is different.

[During a Discussion session]

S45: I must admit that I have learned a lot from our colleague K., I could not imagine that a lifestyle so different from ours would have such interesting things and would bring me new ways of understanding others (D.I. 15-12-2019).

S36: Although I have been very angry all these months because I was forced to share a table and work with H., in the end we have become friends and he is a very nice and intelligent guy. I think he has learned things here with us, but he has also taught us other values, to live with little, friendship, sincerity.

#### 4. Discussion and Conclusions

Firstly, it should be noted that the three activities described above were not the only classroom interventions developed by teachers as a result of their training in the care and treatment of immigrant students, whether accompanied or unaccompanied. In fact, several activities have been carried out for each one of the modules contained in the Quammelot project training course, but these three interactions have been selected, as they are the ones that have aroused more interest in the students. It is also important to highlight that all the actions undertaken were worked on by the whole class group, although they were initially designed with the aim of improving the integration, involvement and participation of immigrant students. After understanding and verifying the didactic potential of the designed proposals, it was decided to dedicate a greater time in class to this type of activities, in detriment of the habitual hours of diverse school disciplines. Contrary to other studies (Poblete Melis, 2018) that find the little flexibility of the curriculum as a difficulty in the inclusion process. It has been possible to verify that the students have shown a greater motivation and a greater interest in the tasks carried out within the context of the Quammelot project. All this, apart from improving the integration of students from other nationalities, has improved the willingness of the class group to face tasks from other subjects. This is due to the fact that the feeling of cordiality and comradeship generated during the debate club, or the chess workshop, or the artistic exhibition, lasted during the whole school day, achieving a greater attention and participation in the rest of the subjects by the students.

We can also point out that not only have students benefited from these activities, but also that the teachers involved in these activities have indicated that they have felt more motivated and committed to their professional work. They already point out that they have perceived a high degree of complicity with their own students, who asked them pertinent questions on the subject. They also say that they were actively involved rather than facing the tasks with laziness and indolence. Even as the activity progressed, they were grateful to their classmates for the tasks they had done, even though they sometimes had to be "encouraged" a little, these facts support the contributions of other studies (Santos, Araújo, & Simões, 2012; 2014). As several authors have pointed out, teachers have not received, either in their initial training or in their continuing education, the foundations that would have prepared them to face interculturality in the classroom (Marcelo, 1992; Peñalva & Soriano, 2010; Pedrero-García, Moreno-Fernández, & Moreno-Crespo, 2017) and reflect the lack of technical and methodological skills of teachers to adapt the curriculum for the benefit of students (Poblete Melis, 2018). However, we have seen the usefulness of this experience, not only for teachers, but also for students in all subjects.

In general, the objectives set regarding the improvement of the defenceless situation and/or exclusion of immigrant students in the classroom have been satisfactorily achieved, with the teachers perceiving an improvement and positive evolution both in academic tasks and in the collaborative work of immigrant students. In addition, the teaching staff has rethought the tasks proposed in the heart of the project for the rest of the school disciplines, adapting them to the content that they must work on, as it happens with the case of the debates in the classroom.

Evidence also emerges from our research that action research is not only a strategy for transforming and improving problem situations (Ander-Egg, 2003), but also, as Ander-Egg (2003), Fredericks (2011) and Johnson and West (2018) point out, a form of professional development for teachers linked to research on their own practice. This process can also become a way of addressing the educational shortcomings of the teaching staff in dealing with interculturality in the classroom (Marcelo, 1992; Peñalva & Soriano, 2010; Pedrero-García, Moreno-Fernández, & Moreno-Crespo, 2017).

Although some authors (Etxeberria & Elosegui, 2010, GarretRucks, 2016; Wagner, Perugini & Byram, 2017), have noted some inconsistency between the theoretical discourse and the practical results of intercultural education, our study shows some results that indicate improvements in coexistence and some change in attitudes among students. We understand that this change can be a way to combat school failure in immigrant students linked to social isolation (Steinbach, 2010, Fuentes & Parra-González, 2020).

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## Developing the Measurement and Evaluation Attitude Scale for Physical Education and Sports Teachers\*

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### ABSTRACT

The aim of this study is to develop a scale that measures the attitudes of physical education and sports teachers towards measurement and evaluation. In this study, scale development principles and steps of DeVellis (2017) were used. Initially, a literature review was conducted, 19 physical education and sports teachers were interviewed in written form and focus group discussion were held with 7 teachers. Certain statements were converted into a format that can be used in the scale form and an item-pool of 73 items was created including positive and negative items. Expert opinions were taken for the draft items, corrections were made in the item pool in line with these expert opinions, and the initial form the scale was created including 58 items. This draft scale was applied to 50 physical education and sports teachers. As a result of the pilot implementation, the scale was put into its final draft form with a total of 58 items, 17 of which were negative. As the conclusion of the reliability and validity tests applied to the Measurement and Evaluation Attitude Scale for Physical Education and Sports Teachers, 34 items were removed from the draft scale and the final form of the scale included 4 factors and 24 items with a variance value of 46.545. The Cronbach Alpha reliability coefficient of the scale was calculated as 0.85.

#### Keywords:

Physical education and sports teacher, measurement, evaluation, attitude

### 1. Introduction

Measurement and evaluation practices are an important part of the education and training processes. Measurement and evaluation reveals to what extent the learners achieved the targeted learning achievements, and to what extent these targeted achievements were accomplished in terms of the teacher. This process, which is an indispensable part of education, will be more meaningful when it is thoroughly accepted and embraced by the teachers. The first priority in ensuring the effectiveness of measurement and evaluation practices is the teacher. Teachers are required to plan the education process, manage the process, measure and evaluate the success. Therefore, it is important for teachers to have a standpoint about the tools and methods of measurement and evaluation and to believe that different methods are necessary.

Quilter (1998) stated that teachers use a variety of measurement and evaluation methods to make decisions in classroom activities, and that measurement and evaluation knowledge levels and attitudes of teachers are correlated. In this context, the teacher who has a positive attitude towards the measurement will try to achieve the measurement and evaluation competences, and this will ensure that different measurement and evaluation tools and methods are included in the process. According to İnceoğlu (2011: 16), attitude is the internal tendency of the person to react to an object or situation in the outside world. In other words, it is the behavior that the person is expected to display in the face of an event or object. Turgut (1995: 155) defined

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attitude as a person's behavior displayed towards a situation, object or person in a positive or negative way. In another definition, attitude is defined as the learned tendency whether to use the right of choice against a psychological element (Tekindal, 2009: 178). Based on all these definitions, we can say that attitudes cannot be observed directly but can be revealed by one's behaviors, therefore, while measuring the attitudes of individuals, their behaviors towards any subject or object should be observed. Keller (2017: 19) reported that success requires more than having a great attitude, success in life starts and ends in attitude, and other principles cannot be put into action without a positive attitude. According to Şişko and Demirhan (2002:205), if a person has a positive attitude towards an object or situation, she/he approaches that object or situation, but if she/he has a negative attitude towards an object or situation, she/he walks away from that object or situation, giving negative reactions. But attitudes can change, new ones can be gained in time.

From the standpoint of the teacher, the attitudes of teachers about measurement and evaluation can be revealed by the methods they follow in the process and by the measurement and evaluation practices they use. For example, we can say that teachers who use different measurement and evaluation tools and methods in the process and who include diversity and flexible practices in the measurement and evaluation process have a positive attitude towards measurement and evaluation; however, we can say that the teachers, who do not include different measurement and evaluation tools and methods, who attempt to use the same and standard measurement and evaluation tool for everyone, and who complete the education process with methods comprising of only a verbal exam and a written exam of open-ended-questions, have a negative attitude towards measurement and evaluation. In the education process, traditional (written exams, oral exams, right-wrong exams, gap-filling etc.) and alternative assessment (rubric, project and performance assignments, observation forms, checklist, self and peer assessment forms, etc.) and evaluation methods are used in physical education and sports lessons as in other lessons. The assessment and evaluation process and these assessment and evaluation methods included in this process are an integral part of the education process. The assessment and evaluation process becomes even more meaningful when it is fully accepted by the teacher. Issues such as teachers' perspectives towards assessment and evaluation tools and methods, their attitudes towards the assessment and evaluation process, and their belief in the necessity of different methods are important. Therefore, it is important to determine the attitudes of teachers regarding measurement and evaluation. With this research, it is aimed to develop a scale that can measure the attitudes of physical education and sports teachers regarding measurement and evaluation, which is an indispensable element of the education system. There is no previous study in the literature presenting a scale to measure the attitudes of physical education and sports teachers regarding measurement and evaluation, which reveals the significance of this study.

## 2. Method

In this section, the scale development process is explained in detail.

### 2.1. Scale Development Process

In order to determine the statements that will be included in the scale development process, the scale development resources (Tavşancıl 2014; Baykul 2015; Özgüven 2015; Erkuş 2016; DeVellis 2017) were examined in the literature. For this purpose, in order to measure the attitudes of physical education and sports teachers towards measurement and evaluation, a Likert-type scale was developed based on the scale development principles and steps of DeVellis (2017). The following steps were followed during the scale development process.

- ✓ Clearly Identifying the Structure to be Measured
- ✓ Determining the Measurement Format and Creating the Item Pool
- ✓ Review of the Item Pool by the Experts (Determination of coefficient of concordance)
- ✓ Pilot Application
- ✓ Application of Items to the Scale Development Sample
- ✓ Evaluation of Items and Putting the Scale into the Most Appropriate Form

**2.1.1. Clearly identifying the structure to be measured.** This measurement tool was developed to reveal the attitudes of physical education and sports teachers about measurement and evaluation.

**2.1.2. Determining the measurement format and creating the item pool.** A literature review was conducted about the measurement and evaluation in the physical education and sports course, and 19 physical education and sports teachers were asked to write what they think about measurement and evaluation in physical education and sports courses, whether they believe in the necessity of measurement and evaluation, and what their thoughts are on the related questions with reason. In addition, focus group interviews were conducted with 7 (3 female - 4 male) teachers. The focus group interview was conducted by a field specialist who has a proficiency in the subject (with a doctoral degree in sports sciences). The interviews lasted 40 minutes and the participants were asked open-ended questions concerning what they think about measurement and evaluation in physical education and sports course, the problems they face and their suggestions for these problems. Recordings of interviews with physical education and sports teachers were examined for several times. As a result, the specified statements were converted into a format that could be used in the scale form and a Likert-type draft form was designed, creating an item pool of 73 items with positive and negative statements.

**2.1.3. Review of the item pool by the experts.** At this stage, the draft form was sent to the field experts (1 professor of educational science, 1 psychological counselor, 1 professor of sports sciences) and a linguist (faculty member) for evaluating both the content validity of the scale and determining whether the prepared items were suitable for the measurement tool. In the draft form sent to experts, scale items were designed as “appropriate, appropriate after corrections, and inappropriate”. The coefficient of concordance among the raters was calculated using the Miles and Huberman (1994) consensus formula. The draft form including 73 items was reduced to 58 items after determining the coefficient of concordance among the raters and the coefficient of concordance was determined as 93% for the agreement among the raters for the 58-item draft form. This result points that the items found in the draft form will reveal the attitudes of physical education and sports teachers towards measurement and evaluation.

**2.1.4. Pilot application.** The draft scale was applied to 50 physical education and sports teachers outside the sample group within the scope of validity for usefulness. As a result of the pilot implementation, the draft form of the scale now included a total of 58 items, 17 of which were negative.

**2.1.5. Application of items to the scale development sample.** Draft evaluation form was implemented to 222 physical education and sports teachers, who were attending the “Training Program for Educators for the Promotion of the Updated Curriculums” that hosted physical education and sports teachers from every province and held in Aydın province in the 2016-2017 academic year by the Ministry of Education.

Researcher views (Comrey & Lee, 1992; Kline, 1994; as cited in Çokluk, Şekercioğlu & Büyüköztürk, 2016: 206; Erkuş, 2016: 59) and the KMO values in Table 1 indicate that the sample size is sufficient for factor analysis.

**Table 1.** Interpretation of the KMO Test Results

KMO value	Interpretation
0,90	Perfect
0,80	Very Well
0,70	Well
0,60	Medium
0,50	Weak
Below 0,50	Unacceptable

Source: Kalaycı, 2014: 322; Tavşancıl, 2002: 50; Altunışık, Coşkun, Bayraktaroğlu & Yıldırım, 2005: 217

**2.1.6. Evaluation of items and putting the scale into the most appropriate form.** Statistical analyses were conducted following the application of the items to the scale development sample, the items were revised for the last time and the scale was given its final form for the factor analysis.

Before the decided statistical analyses, revision of the data is of vital significance for the research to obtain valid and reliable results. There are a number of objectives for reviewing research data before multivariate analyses (Mertler & Vannatta, 2005: as cited in Çokluk et al., 2016: 9). These are; examining the accuracy of the data, examining the loss data, elimination of the extreme values, and satisfaction of the assumptions. In this context, the accuracy of the data was examined, all data entered into SPSS were checked and 5 scales

were excluded from the analysis due to incorrect data entry, and 3 scales due to loss values in which almost half the items were left blank.

Before applying statistical analyses, it is necessary to test whether certain assumptions are satisfied. Some multivariate analyses have their own unique assumptions (Çokluk et al., 2016: 10).

The processes performed at this stage are listed below:

### 2.1.6.1. Normality test.

**Table 2.** Normality Test Results of the MEASPEST (draft scale)

		Statistics	Standard deviation
Mean		201,96	1,224
Mean value at a confidence interval of 95%	Lower limit	199,54	
	Upper limit	204,37	
5% Trimmed Mean		201,55	
Mode		202,00	
Median		201,50	
Variance		320,78	
Standard deviation		17,910	
Minimum		160,00	
Maximum		247,00	
Range		87,00	
Skewness		,293	,166
Kurtosis		-,388	,331

When Table 2 is examined, it is observed that the arithmetic mean of 214 data for the MEASPEST is 201.96 and the standard deviation is 17,910. In addition, the lower and upper limits range from 199.54 to 204.37 in the 95% confidence range. The median for this series is 201.50. According to Kalaycı (2005: 6) and Howitt and Cramer (2011), the mod, median and arithmetic mean must be equal in order for the data to show a normal distribution. According to Büyüköztürk (2014: 40), the basics of the analysis is that the scores should not extremely deviate from the normal. The fact that the coefficient of skewness remains within the limits of -1 to +1 can be interpreted that the points do not show a significant deviation from the normal distribution. According to George and Mallery (2010: 409) and Blest (2003: 175), if the skewness and kurtosis values are between +2 and -2, it points that the data shows normal distribution. The mod, median and arithmetic mean of the draft measuring tool applied to 214 people during the scale development process and skewness (0.293) and kurtosis (-0.388) values indicate that the distribution of the data is close to normal.

### 2.1.6.2. t-Test for the significance of the differences between the item mean scores of the lower 27% and upper 27% groups formed according to their total scores.

**Table 3.** T-Test Results of the Lower 27% and Upper 27% Groups which Responded the MEASPEST (draft scale) for the Item Mean Scores

Items	Groups	N	Mean	SD	t	p
Item 1	Upper	58	4,3276	,82479	5,982	,000
	Lower	58	3,5000	,65561		
Item 2	Upper	58	4,5690	,59566	10,099	,000
	Lower	58	3,3793	,67089		
Item 3	Upper	58	4,3966	,74785	8,025	,000
	Lower	58	3,3276	,68538		
Item 4	Upper	58	3,8621	1,08334	7,118	,000
	Lower	58	2,5690	,86068		
Item 5	Upper	58	4,2586	,80699	5,678	,000
	Lower	58	3,4138	,79548		

**Table 3.** (Continue)

Item 6	Upper	58	4,2759	,79014	6,814	,000
	Lower	58	3,2414	,84418		
Item 7	Upper	58	3,9138	1,08068	6,150	,000
	Lower	58	2,6897	1,06305		
Item 8	Upper	58	4,0517	,88699	4,221	,000
	Lower	58	3,3621	,87255		
Item 9	Upper	58	4,2759	,66999	5,183	,000
	Lower	58	3,5000	,92243		
Item 10	Upper	58	4,3103	,79927	6,476	,000
	Lower	58	3,3103	,86261		
Item 11	Upper	58	4,1034	1,00332	6,493	,000
	Lower	58	2,8276	1,11036		
Item 12	Upper	58	4,0345	,72464	5,600	,000
	Lower	58	3,2931	,70109		
Item 13	Upper	58	4,1379	,75969	5,301	,000
	Lower	58	3,3448	,84918		
Item 14	Upper	58	3,2414	1,30196	2,971	,004
	Lower	58	2,6207	,91436		
Item 15	Upper	58	3,8966	1,00332	4,785	,000
	Lower	58	3,0345	,93594		
Item 16	Upper	58	2,4655	1,04656	-1,502	,136
	Lower	58	2,7241	,79014		
Item 17	Upper	58	4,2586	,76228	5,926	,000
	Lower	58	3,4138	,77311		
Item 18	Upper	58	4,2586	,57918	6,478	,000
	Lower	58	3,4655	,73067		
Item 19	Upper	58	3,3448	1,35791	3,325	,001
	Lower	58	2,6552	,80681		
Item 20	Upper	58	3,8793	,83933	5,902	,000
	Lower	58	3,0517	,66021		
Item 21	Upper	58	4,2414	,68340	9,439	,000
	Lower	58	3,0172	,71307		
Item 22	Upper	58	2,7931	1,15103	-,834	,406
	Lower	58	2,9483	,82552		
Item 23	Upper	58	4,2241	,89918	5,256	,000
	Lower	58	3,3966	,79339		
Item 24	Upper	58	4,4138	,59337	7,096	,000
	Lower	58	3,3966	,91651		
Item 25	Upper	58	4,1724	,75249	6,497	,000
	Lower	58	3,2586	,76228		
Item 26	Upper	58	3,6379	1,13475	2,871	,005
	Lower	58	3,1379	,68693		
Item 27	Upper	58	3,0345	1,52137	1,493	,138
	Lower	58	2,6897	,88272		
Item 28	Upper	58	4,2759	,52292	8,232	,000
	Lower	58	3,2414	,80154		
Item 29	Upper	58	4,1552	,69590	6,509	,000
	Lower	58	3,2586	,78495		
Item 30	Upper	58	4,2759	,69568	7,981	,000
	Lower	58	3,1552	,81223		

**Table 3.** (Continue)

Item 31	Upper	58	3,1552	1,28147	2,914	,004
	Lower	58	2,5690	,84005		
Item 32	Upper	58	4,1207	,70282	6,307	,000
	Lower	58	3,3103	,68073		
Item 33	Upper	58	4,2069	,55439	6,085	,000
	Lower	58	3,4310	,79719		
Item 34	Upper	58	3,9138	,90388	4,132	,051
	Lower	58	3,2931	,70109		
Item 35	Upper	58	4,1552	,69590	6,071	,000
	Lower	58	3,3103	,79927		
Item 36	Upper	58	3,2586	1,25041	2,567	,012
	Lower	58	2,7414	,88971		
Item 37	Upper	58	4,2586	,60872	7,431	,000
	Lower	58	3,3276	,73480		
Item 38	Upper	58	4,3448	,76208	7,494	,000
	Lower	58	3,2931	,74947		
Item 39	Upper	58	4,1724	,67896	7,504	,000
	Lower	58	3,2414	,65722		
Item 40	Upper	58	4,9138	5,39748	2,428	,017
	Lower	58	3,1724	,84059		
Item 41	Upper	58	3,1897	1,48036	1,307	,194
	Lower	58	2,8966	,85203		
Item 42	Upper	58	3,5862	1,02657	2,565	,012
	Lower	58	3,1379	,84704		
Item 43	Upper	58	3,9138	,73232	5,205	,000
	Lower	58	3,1379	,86751		
Item 44	Upper	58	4,0517	,84651	6,171	,000
	Lower	58	3,1724	,67896		
Item 45	Upper	58	3,1552	1,25379	1,706	,091
	Lower	58	2,8276	,75249		
Item 46	Upper	58	4,1552	,83355	6,456	,000
	Lower	58	3,2414	,68340		
Item 47	Upper	58	3,2414	1,53680	2,293	,024
	Lower	58	2,7241	,76761		
Item 48	Upper	58	2,6207	1,46092	-3,028	,003
	Lower	58	3,2586	,66386		
Item 49	Upper	58	3,9828	,73726	4,996	,000
	Lower	58	3,2931	,74947		
Item 50	Upper	58	4,1034	,64044	6,624	,000
	Lower	58	3,2414	,75650		
Item 51	Upper	58	2,6379	1,08738	,308	,759
	Lower	58	2,5862	,67628		
Item 52	Upper	58	4,3103	,65446	7,765	,000
	Lower	58	3,3103	,73046		
Item 53	Upper	58	4,2586	,60872	8,547	,000
	Lower	58	3,1724	,75249		
Item 54	Upper	58	2,8448	1,07282	1,982	,050
	Lower	58	2,5000	,77799		
Item 55	Upper	58	4,2414	,80154	6,599	,000
	Lower	58	3,3276	,68538		

**Table 3.** (Continue)

Item 56	Upper	58	4,2414	,75650	7,002	,000
	Lower	58	3,2931	,70109		
Item 57	Upper	58	4,1897	,78264	6,909	,000
	Lower	58	3,2586	,66386		
Item 58	Upper	58	2,5000	1,20307	-1,386	,168
	Lower	58	2,7586	,75650		

The ones with a high total score also have a high item mean score if the item is distinctive. Those with low total mean score have also low item mean score (Erkuş, 2016: 146).

When Table 3 is examined, it is observed that the t value is not significant in the items numbered 16, 22, 27, 34, 41, 45, 51, 54, 58, and that the 48<sup>th</sup> item is not good in distinguishing the lower and upper groups. Scale items other than these items can be said to be effective in distinguishing between teachers with low attitudes and teachers with high attitudes towards measurement and evaluation.

**2.1.6.3. Evaluating the reliability of test items using item total correlations.** As a result of the item analysis, the reliability of scale items was determined by using item-total correlations. The results of the item analysis are given in Table 4.

**Table 4.** Item Analysis Results of the MEASPEST (draft scale)

Items	N	r	p	Items	r	p
Item 1	214	,382	,000	Item 31	,214	,002
Item 2	214	,564	,000	Item 32	,408	,000
Item 3	214	,503	,000	Item 33	,420	,000
Item 4	214	,424	,000	Item 34	,285	,000
Item 5	214	,397	,000	Item 35	,392	,000
Item 6	214	,414	,000	Item 36	,196	,004
Item 7	214	,392	,000	Item 37	,450	,000
Item 8	214	,297	,000	Item 38	,504	,000
Item 9	214	,395	,000	Item 39	,447	,000
Item 10	214	,405	,000	Item 40	,278	,000
Item 11	214	,352	,000	Item 41	,120	,080
Item 12	214	,388	,000	Item 42	,221	,001
Item 13	214	,413	,000	Item 43	,377	,000
Item 14	214	,244	,000	Item 44	,454	,000
Item 15	214	,369	,000	Item 45	,182	,008
Item 16	214	-,153	,025	Item 46	,472	,000
Item 17	214	,458	,000	Item 47	,200	,003
Item 18	214	,467	,000	Item 48	-,259	,000
Item 19	214	,229	,001	Item 49	,314	,000
Item 20	214	,457	,000	Item 50	,407	,000
Item 21	214	,586	,000	Item 51	-,10	,880
Item 22	214	-,044	,518	Item 52	,472	,000
Item 23	214	,434	,000	Item 53	,568	,000
Item 24	214	,501	,000	Item 54	,083	,229
Item 25	214	,436	,000	Item 55	,453	,000
Item 26	214	,183	,007	Item 56	,491	,000
Item 27	214	,118	,085	Item 57	,495	,000
Item 28	214	,502	,000	Item 58	-,128	,061
Item 29	214	,422	,000			
Item 30	214	,521	,000			



The item-total correlation coefficients are classified as the *very good item* for  $r \geq 0.40$ , the *good item* for  $0.30 \leq r \leq 0.39$ , the *item that can be tested if necessary or after correction* for  $0.20 \leq R \leq 0.29$ , and as the *item that should not be tested* for  $r \leq 0.19$  (Büyüköztürk, 2014: 183).

When Table 4 is examined, it is observed that the correlations of the items in the draft attitude scale that are numbered 8, 14, 16, 19, 22, 26, 27, 31, 34, 36, 40, 41, 42, 45, 47, 48, 51, 54, and 58 are at a low level. It is observed that, for the scale items other than these, the item-total correlations vary between 0.314 - 0.586 and  $t$  values are significant. This result can be interpreted that the items on the scale are intended to measure the same behavior. Furthermore, this finding explains that items in the scale have the ability to distinguish the levels of attitudes that physical education and sports teachers have.

**2.1.6.4. Kaiser-Mayer-Olkin (KMO) and Barlett tests.** It is an index that compares the magnitude of coefficients of observed correlation with the magnitude of coefficients of part correlation. The KMO ratio should be above 0.5 (Kalaycı, 2014: 322; Pallant, 2003: Tavşancıl, 2002: 50; Altunışık et al, 2005: 217). Therefore, relevant values were studied before Exploratory Factor Analysis (EFA).

The KMO and Barlett results of the 39 items, which remained after the exclusion of 19 items from the draft scale as a result of the analyses, are presented in Table 5.

**Table 5.** Kaiser-Mayer-Olkin (KMO) Sample Measurement and Barlett's Test Results

KMO Sample Measurement Value Sufficiency =		,855
Barlett Test	Proximate Chi-Square Value	2933,471
	sd	741
	p	,000

When Table 5 is examined, it is observed that the results of the Kaiser-Mayer-Olkin (KMO) test and the Barlett test are significant. This shows that there are high correlations between variables, in other words, that the attitude scale is suitable for factor analysis.

### 3. Findings

#### 3.1. Exploratory Factor Analysis Results

Factor analysis is a multivariate statistic that aims at discovering a few number of new, unrelated, and conceptually meaningful variables (factors, dimensions) by bringing together  $p$  number of variables that are associated with each other (Büyüköztürk, 2014: 133). In exploratory factor analysis, it is aimed to define and summarize data by grouping the variables associated with each other (Tabachnick and Fidell, 2015: 614).

As a result of the statistical significance, factor analysis was performed to determine the factor structure of the MEASPEST. The stability of a factor is related to the factor loads carried by its items. In order for a factor to be considered stable, it is emphasized in the literature that item factor loads must be above 0.30 and should consist of at least three items (Hogarty, Hines, Kromrey, Perron and Mumford, 2005; MacCallum, Widaman, Zhang and Hong, 1999; Pituch and Stevens, 2016). Büyüköztürk (2014: 134) also states that if the item factor load value is 0.45 or higher, it indicates a good result, and this limit value can be reduced to 0.30 for smaller number of items. It is also stated that there is a relationship between the factor load value and the sample size. In this case, for a sample of 200 people, the acceptable factor load should be .40, and for a sample of 250 individuals, it should be .35 (Hair, Black, Babin, Anderson and Tatham, 1998: 115).

Common factor variances of items of the scale are presented in Table 6.

**Table 6.** Common Variance Values of the Items of the MEASPEST (draft scale)

	Initial Value	Subtraction Value		Initial Value	Subtraction Value
Item1	1,000	,649	Item25	1,000	,626
Item2	1,000	,730	Item28	1,000	,585
Item3	1,000	,559	Item29	1,000	,487
Item4	1,000	,651	Item30	1,000	,563
Item5	1,000	,587	Item32	1,000	,580
Item6	1,000	,536	Item33	1,000	,579
Item7	1,000	,712	Item35	1,000	,505
Item9	1,000	,517	Item37	1,000	,658
Item10	1,000	,630	Item38	1,000	,432
Item11	1,000	,679	Item39	1,000	,616
Item12	1,000	,646	Item43	1,000	,595
Item13	1,000	,555	Item44	1,000	,443
Item15	1,000	,505	Item46	1,000	,521
Item17	1,000	,582	Item49	1,000	,615
Item18	1,000	,507	Item50	1,000	,664
Item20	1,000	,632	Item52	1,000	,689
Item21	1,000	,678	Item53	1,000	,568
Item23	1,000	,589	Item55	1,000	,665
Item24	1,000	,625	Item56	1,000	,674
			Item57	1,000	,570

According to Table 6, it is observed that the common factor variances of the items in the draft attitude scale vary between .432- .730. This indicates that the factor variance of the items is high.

**Table 7.** The Factor Count and Explained Variance Percentage of the MEASPEST (Draft Scale) Based on the Eigenvalue Statistics

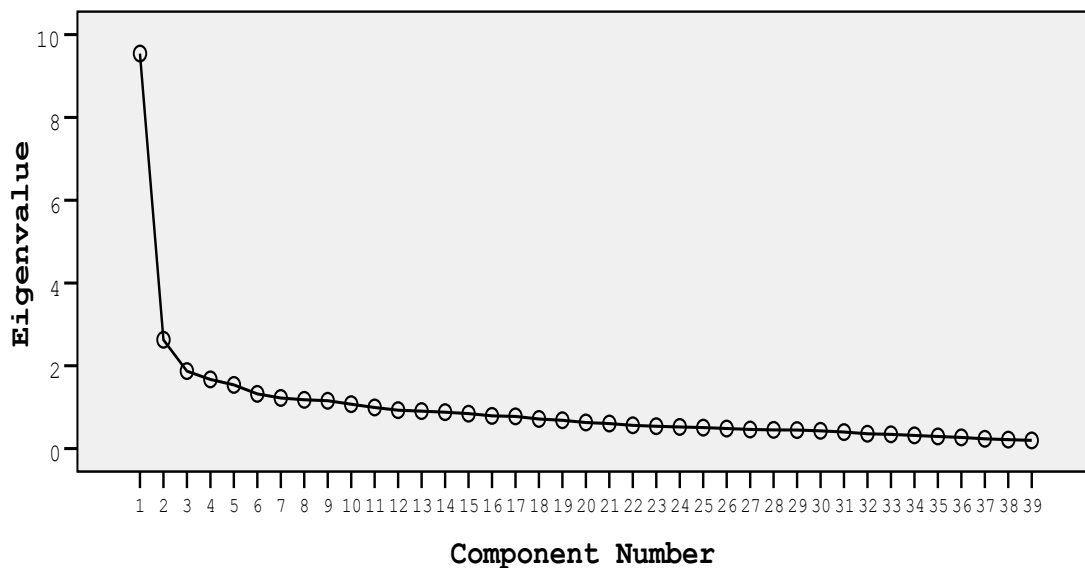
Component	Initial Eigenvalues			Eigenvalues After Reduction		
	Total	Variance Contribution Percentage	Cumulative Percentage of the Variance Contribution	Total	Variance Contribution Percentage	Cumulative Percentage of the Variance Contribution
1	9,542	24,468	24,468	9,542	24,468	24,468
2	2,628	6,739	31,207	2,628	6,739	31,207
3	1,871	4,799	36,005	1,871	4,799	36,005
4	1,671	4,285	40,290	1,671	4,285	40,290
5	1,539	3,946	44,236	1,539	3,946	44,236
6	1,323	3,392	47,627	1,323	3,392	47,627
7	1,223	3,135	50,762	1,223	3,135	50,762
8	1,179	3,022	53,784	1,179	3,022	53,784
9	1,156	2,965	56,749	1,156	2,965	56,749
10	1,072	2,748	59,497	1,072	2,748	59,497
11	,993	2,545	62,041			
12	,928	2,380	64,421			
13	,905	2,321	66,742			
14	,880	2,256	68,998			
15	,844	2,164	71,162			
16	,790	2,026	73,188			
17	,779	1,996	75,185			
18	,715	1,834	77,018			
19	,684	1,753	78,771			

**Table 7.** (Continue)

20	,631	1,617	80,388
21	,605	1,551	81,939
22	,562	1,442	83,381
23	,540	1,384	84,766
24	,523	1,340	86,106
25	,507	1,300	87,405
26	,484	1,242	88,647
27	,462	1,185	89,832
28	,453	1,161	90,993
29	,447	1,147	92,140
30	,429	1,101	93,241
31	,400	1,026	94,266
32	,358	,918	95,185
33	,344	,882	96,067
34	,319	,818	96,885
35	,293	,752	97,637
36	,271	,694	98,331
37	,236	,605	98,935
38	,217	,555	99,490
39	,199	,510	100,000

When Table 7 is examined, it is observed that the 39 items (variables) analyzed are grouped under 10 factors whose eigenvalue is greater than 1, and that these 10 factors explain 59,497% of the variance of the scale. The scree plot and the effect of factors on the total variance are important when deciding the number of factors (Tabachnick & Fidell, 2015: 649, Çokluk et al, 2016: 230). Examining the variance values before deciding the number of the factors, it was determined that the contribution of the first four components to the variance was higher and the contribution decreased after the fourth component. However, when the line graph based on the eigenvalue (Figure 1) is examined, a significant decrease is observed after the 4<sup>th</sup> interval, demonstrating that the scale is suitable for 4-factor Structure.

**Scree Plot**



**Figure 1.** Scree Plot of the MEASPEST (draft scale) Items Delineated based on their Eigenvalues

After deciding about the four-factor structure of the final attitude scale concerning the measurement and evaluation for the physical education and sports teachers, the analysis was conducted based on 0.20 overlapping, the items numbered 49, 17, 43, 28, 50, 18, 12, 5, 5, 25, 9, 13, 24, 30 were excluded respectively,

ultimately obtaining a 24-item final scale form. The explained variance for the resulting 24-item and 4-component final scale form is given in Table 8.

**Table 8.** Explained Total Variance of the MEASPEST

Component	Initial Eigenvalues			Eigenvalues After Reduction		
	Total	Variance Contribution Percentage	Cumulative Percentage of the Variance Contribution	Total	Variance Contribution Percentage	Cumulative Percentage of the Variance Contribution
1	6,020	25,085	25,085	6,020	25,085	25,085
2	2,198	9,159	34,244	2,198	9,159	34,244
3	1,563	6,513	40,757	1,563	6,513	40,757
4	1,389	5,788	46,545	1,389	5,788	46,545
5	1,129	4,704	51,249			
6	1,099	4,580	55,829			
7	1,034	4,309	60,138			
8	,889	3,704	63,842			
9	,878	3,660	67,503			
10	,811	3,381	70,884			
11	,764	3,182	74,065			
12	,708	2,949	77,014			
13	,666	2,775	79,789			
14	,641	2,669	82,459			
15	,574	2,393	84,852			
16	,519	2,162	87,014			
17	,482	2,007	89,021			
18	,470	1,958	90,979			
19	,444	1,849	92,828			
20	,415	1,730	94,558			
21	,386	1,607	96,165			
22	,351	1,464	97,629			
23	,304	1,266	98,895			
24	,265	1,105	100,000			

The explained variance being within the limits of 40% and 60% is considered sufficient in the multifactorial designs in the Social Sciences (Scherer, Wiebe, Luther and Adams 1988: as cited in Tavşancıl, 2014: 48; Henson and Roberts, 2006: 402; Vieira, 2011: 65). When Table 8 is examined, it is observed that the total variance of the final attitude scale for physical education and sport teachers, consisting of 4 factors and 24 items, is 46.545. The factor loads and distributions of the final attitude scale are indicated in Table 9.

**Table 9.** Items and Factor Loads of the MEASPEST

	New Item No	Component			
		1	2	3	4
Item 20	10	,701			
Item 21	11	,699		,325	
Item 44	19	,608			
Item 46	20	,579			
Item 32	14	,574			
Item 37	16	,557			
Item 35	15	,546			
Item 39	18	,545			
Item 38	17	,521			
Item 23	12	,459			
Item 29	13	,438			

**Table 9.** (Continue)

Item 55	22				,729
Item 56	23				,712
Item 57	24				,702
Item 52	21				,617
Item 2	2				,738
Item 1	1				,678
Item 10	7				,572
Item 15	9				,527
Item 3	3				,518
Item 6	5				,507
Item 7	6				,819
Item 4	4				,776
Item 11	8				,774
Cronbach Alpha	.85	.82	.75	.69	.75

At the end of the validity and reliability studies of the MEASPEST, 34 items were removed from the draft scale and the MEASPEST was put into its final form, consisting of 4 factors and 24 items with a variance value of 46,545. The naming of the factors was based on the classification of the attitudes and values competence field of the General Competences of the Teaching Profession prepared by the Ministry of National Education (MoNE) General Directorate of Teacher Training and Development (2017). Attitudes and Values competence field includes the general attitudes and values of the teaching profession, approaches to the student, national spiritual and universal values, communication and cooperation, and personal and professional development sub-competencies (MEB, 2017: 16). In this context, based on the competence classification of the MoNE, the 4 factors of the 24-item MEASPEST were named as *personal and professional development* (Factor 1), *communication and cooperation* (Factor 2), *student* (Factor 3) and *negativity* (Factor 4).

Under factor 1; the items numbered 10 (.701), 11 (.699), 19 (.608), 20 (.579), 14 (.574), 16 (.557), 15 (.546), 18 (.545), 17 (.521), 12 (.459) and 13 (.438) have the highest factor loads. These items were named as *personal and professional development factor*. All of the items are about following current studies in measurement and evaluation, interest in different measurement and evaluation applications, and the desire to learn new knowledge about the subject. In particular, having certain values for the teachers in the items such as keeping pace with the innovation, research, experimentation and development, made it easier to name this factor as *personal and professional development*. Certain statements in the Attitudes and Values teacher competence field of the MoNE (2017: 16) such as *teachers are doing their profession fondly and willingly*, and *teachers are engaging in activities aimed at improving themselves personally and professionally*, are similar to the naming of the Factor 1.

Under factor 2; the factor loads of the items numbered 22 (.729), 23 (.712), 24 (.702) and 21 (.617) are predominantly clustered. This factor was named as *the communication and cooperation factor*. The items are about the professional conduct and practices of teachers. Certain statements in the Attitudes and Values teacher competence field of the MoNE (2017: 16) such as *being open to sharing knowledge and experience with colleagues* and *using effective communication techniques* are in line with the items grouped under Factor 2.

Under factor 3; the items numbered 2 (.738), 1 (.678), 7 (.572), 9 (.527), 3 (.518) and 5 (.507) have the highest factor loads. These six items are about the learning process. Especially measurement and evaluation applications and student learning (incentive, fostering interest, teaching to take responsibility, etc.) are the main points highlighted in these items. Therefore, this factor was named as *the student factor*. Certain statements in the Attitudes and Values teacher competence field of the MoNE (2017: 16) such as *displaying attitudes that support developments of students* and *defending that each student can learn* are in parallel with the items grouped under Factor 3.

Similarly, under the Factor 4; the items numbered 6 (.819), 4 (.776), and 8 (.774) have the highest factor loads. All of these variables are about negative thoughts of teachers about measurement and evaluation in physical education and sports course. In particular, statements such as *considering measurement and evaluation*

applications as educationally worthless and unnecessary have been taken into consideration in naming the factor. Therefore, Factor 4 is called the *negativity factor*.

Cronbach Alpha reliability coefficient of the final form of the MEASPEST form was calculated as 0.85. The calculated Cronbach Alpha value is in the range of  $0.80 \leq \alpha \leq 1.00$ , so the scale is highly reliable (Belt, 2014: 405). The items were formed in a 5-point Likert type design and the responses of the participants were classified as “strongly agree (5)”, “agree (4)”, “neutral (3)”, “disagree (2)” and “strongly disagree (1)”. 21 of the items on the scale are positive and 3 were negative. After reversing the negative items (4,6 and 8), the formula  $a = Range / number\ of\ groups\ to\ be\ decided$  was used to determine the group value range of the scale (Taşdemir, 2003). The scoring of the scale is “strongly agree: 4.20-5.00”, “agree: 3.40-4.19”, “neutral: 2.60-3.39”, “disagree: 1.80-2.59”, and “strongly disagree: 1.00-1.79”.

### 3.2. Confirmatory Factor Analysis (CFA) Results

CFA is a technique used in the advanced stages of research processes to test a theory about implicit processes. Variables are carefully and meticulously chosen to reveal basic processes (Tabachnick and Fidell, 2015: 614). In order to demonstrate the validity of the proposed model, CFA was performed through the LISREL 9.2 in this study. A single statistical significance test is not sufficient to accurately identify a model obtained with CFA, instead, it is necessary to evaluate it according to many criteria (Schumacker and Lomax, 2004: 83). The value that tests the statistical suitability of the model proposed in CFA and the analysis data is the value  $\chi^2$  (Bacon, 1997: 11). The results of the analysis were examined using the Chi square fit statistics and various fit and error indexes of different perspectives. Second-level confirmatory factor analysis should definitely be performed on multifactor scales (Seçer, 2015). In this context, the second-level CFA was also conducted and the relevant indices, the fit indices selected for comparison, and the required limit are indicated in Table 2.12.

**Table 10.** CFA Model Fit Index Values and CFA Results of the MEASPEST

Fit Index	Acceptable Fit	Perfect Fit	1 <sup>st</sup> Level CFA Results	2 <sup>nd</sup> Level CFA Results
NFI	.90 and above	.95 and above	0,91	0.90
NNFI	.90 and above	.95 and above	0,98	0.97
IFI	.90 and above	.95 and above	0,98	0.98
RFI	.90 and above	.95 and above	0,90	0.89
CFI	.90 and above	.95 and above	0,98	0.98
GFI	.85 and above	.90 and above	0,90	0.89
AGFI	.85 and above	.90 and above	0,87	0.87
RMR	Between .050 - .080	Between .000 - .050	0.046	0.056
REMSEA	Between .050 - .080	Between .000 - .050	0.031	0.034
$\chi^2/ sd$	Between 2-3 (inc.)	Between 0 - 2 (inc.)	1.20	1.25

Source: (Bayram, 2010:78; Byrne, 2010:80; Hair, Black, Babin & Anderson, 2010:668; Schumacker & Lomax, 2004: 83; Şimşek, 2007:48).

When Table 10 is examined, it was concluded that, based on the first and second level CFA results of the MEASPEST, the models of the scale items in the relevant structure were suitable. When the model-data fit is examined, it is observed that the acceptability of the data is quite good and the model is confirmed.

### 4. Conclusion and Discussion

In this study, a scale was developed to determine the attitudes of physical education and sports teachers concerning measurement and evaluation. As a result of the literature review and interviews with the teachers, certain statements were converted into a format that could be used in scale form and the draft form was designed in the 5-point Likert type, creating an item pool with 73 positive and negative items.

While the draft scale included 73 items, it was reduced to 58 items by determining the coefficients of concordance among the raters, and the coefficient of concordance was determined for the 58-item draft form as 93% for the agreement among the raters. The draft scale was applied to 50 physical education and sports teachers outside the sample group concerning the validity for usefulness. As a result of the pilot

implementation, the draft form of the scale was finalized as a total of 58 items, 17 of which were negative. The draft measurement form was applied to 222 physical education and sports teachers on a voluntary basis.

Distinctiveness and reliability of scale materials were examined. As a result of the analyses, items numbered 8, 14, 16, 19, 22, 26, 27, 31, 34, 36, 40, 41, 42, 45, 47, 48, 51, 54 and 58 were removed from the scale.

It was observed that 39 items (variables) were grouped under 10 factors whose eigenvalue is greater than 1, and that these 10 factors on the scale explained 59,497% of the variance. Examining the variance values before deciding the number of the factors, it was determined that the contribution of the first four components to the variance was higher and the contribution decreased after the fourth component. However, the line graph based on the eigenvalue was examined, and a significant decrease is observed after the 4<sup>th</sup> interval, demonstrating that the scale is suitable for a 4-factor structure. After deciding about the four-factor structure of the final attitude scale concerning the measurement and evaluation for the physical education and sports teachers, the analysis was conducted based on 0.20 overlapping, the items numbered 49, 17, 43, 28, 50, 18, 12, 5, 5, 25, 9, 13, 24, 30 were excluded respectively, ultimately obtaining a 4-component and 24-item final scale form.

At the end of the validity and reliability studies of the attitude scale for physical education and sports teachers concerning measurement and evaluation, 34 items were removed from the draft scale and it was put into its final form, consisting of 4 factors and 24 items with a variance value of 46,545.

The naming of the factors was based on the classification of the attitudes and values competence field of the General Competences of the Teaching Profession prepared by the Ministry of National Education (MoNE) General Directorate of Teacher Training and Development (2017). Attitudes and Values competence field includes the general attitudes and values of the teaching profession, approaches to the student, national spiritual and universal values, communication and cooperation, and personal and professional development sub-competencies (MEB, 2017: 16). In this context, based on the competence classification of the MoNE, the 4 factors of the 24-item scale were named as *personal and professional development* (Factor 1), *communication and cooperation* (Factor 2), *student* (Factor 3) and *negativity* (Factor 4).

Cronbach Alpha reliability coefficient of the final form of the attitude scale for physical education and sports teachers concerning measurement and evaluation was calculated as 0.85. The items were formed in a 5-point Likert type design and the responses of the participants were classified as “strongly agree (5)”, “agree (4)”, “neutral (3)”, “disagree (2)” and “strongly disagree (1)”. 21 of the items on the scale are positive and 3 were negative.

Whether the results of the exploratory factor analysis were fit was examined through the chi-square fit statistics and the RMR, AGFI, GFI, RFI, NNFI, IFI, CFI, GFI, and RAMSEA fit indices. The first and second level CFA results of the attitude scale for physical education and sports teachers concerning measurement and evaluation demonstrated that the models of the scale items for this structure were suitable.

When the literature was examined, it was observed that certain subjects were studied such as attitude scales for the course of measurement and evaluation in education (Yaşar 2014; Aktaş & Alıcı, 2012; Khan, 2006; Akdağ Gürsoy, 2015; Ozan & Köse, 2013), scales developed to measure the attitudes of prospective teachers of other fields regarding the measurement and evaluation (Yıldırım & Öztürk, 2009; İzci, Göktaş and Şad 2014), attitude scales developed for teachers of other fields (Karaduz, 2009; Erdoğan, 2010; Çalışkan, 2012; Çalışkan & Yazıcı, 2013; Kılıç, 2014), scales about the teachers' competences on measurement and evaluation (Gelbal & Kellecioglu), views and practices of teachers on alternative evaluation (Güneş, Dilek, Hoplan, Celikoglu, & Demir, 2010; Çalışkan & Sağlam, 2017; Aşık, 2019; Aras, 2020), studies on measurement and evaluations competences of physical education teachers (Tousignant and Siedentop, 1983; Weinberg, 1996; Lai, Wu, Lee, and Jhang, 2018), the frequency of use of measurement and evaluation tools by the physical education teachers (Killoran, 1982), and what the physical education teachers prioritize in selecting the measurement and evaluation tools (Hensley, 1997), which tools the physical education teachers use in their courses (Lund, 1997; Mintah, 2003). However, no measurement tool was encountered that measures the attitudes of physical education and sports teachers. In this regard, it is thought that this study will contribute to the literature and it will fill this gap.

## Recommendations

By using the scale developed within the scope of this study, further studies can examine measurement and evaluation attitudes of physical education and sports teachers in different samples. The results of the studies can be evaluated by the Ministry of National Education (Turkey), and projects can be developed for the development of teachers in this field.

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**Annex-A: Items of Measurement and Evaluation Attitude Scale for Physical Education and Sports Teachers**

<b>Ek-A: Beden Eğitimi ve Spor Öğretmenleri İçin Ölçme Değerlendirmeye İlişkin Tutum Ölçeği Maddeleri</b>	
	<b>Kesinlikle Katılmıyorum (1)</b> <b>Katılmıyorum (2)</b> <b>Kararsızım (3)</b> <b>Katılıyorum (4)</b> <b>Kesinlikle Katılıyorum (5)</b>
1	Ölçme değerlendirme uygulamalarının (proje,gözlem vb.) eğitim sürecinde etkili bir öğretim aracı olduğunu düşünüyorum.
2	Farklı ölçme değerlendirme uygulamalarının, öğrencilerde öğrenmeyi daha istekli hâle getirdiğine inanıyorum.
3	Derslerimde farklı ölçme değerlendirme araçlarını kullandığımda öğrencilerin derse ilgisinin arttığını düşünüyorum.
4	Ölçme değerlendirmede kullanılan araçların bilinmesinin eğitsel değeri olmadığını düşünüyorum.
5	Ölçme değerlendirme uygulamalarının, öğrencilerin sorumluluk duygusunu geliştirdiğine inanıyorum.
6	Beden eğitimi ve spor dersinde alternatif ölçme değerlendirme araçlarını gereksiz buluyorum.
7	Zengin ölçme değerlendirme sürecinin, bireysel farklılıklara uygun öğrenme fırsatı sağladığına inanıyorum.
8	Beden eğitimi ve spor dersinde, süreci değerlendirmenin gereksiz olduğunu düşünüyorum.
9	Derslerimde kullandığım farklı ölçme değerlendirme uygulamalarının, öğrencilere kendi kendine ders çalışma alışkanlığını kazandırdığını düşünüyorum.
10	Ölçme değerlendirme ile ilgili güncel çalışmaları takip ederim.
11	Farklı ölçme değerlendirme uygulamalarını kullandıkça işimi daha çok seviyorum.
12	Öğretmenlerin, ölçme değerlendirme konularına hakim olması gerektiğini düşünüyorum.
13	Süreç odaklı ölçme değerlendirme uygulamalarının, öğrencilerin dikkat düzeylerini artırdığını düşünüyorum
14	Farklı ölçme değerlendirme uygulamalarını öğrenmek çok ilgimi çeker.
15	Diğer öğretmenlerin derslerinde kullandıkları farklı ölçme değerlendirme uygulamalarının örnek alınması gerektiğine inanıyorum.
16	Ölçme değerlendirme sürecinin, öğrencilerin güçlü yönlerinin tespitinde önemli rol oynadığına inanıyorum.
17	Farklı ölçme değerlendirme araçlarını derslerimde uyguladıkça, çalışma verimimin arttığını düşünüyorum.
18	Ölçme değerlendirme sürecinin kalıcı öğrenmeyi sağladığını düşünüyorum.
19	Ölçme değerlendirmeyle ilgili yeni bilgiler öğrenmenin mesleki olarak gelişmeye imkân sağladığına inanıyorum.
20	Öğretmenlerin farklı ölçme değerlendirme araçlarını kullanmaları konusunda teşvik edilmeleri gerektiğine inanıyorum.
21	Öğretmen olduktan sonra eğitimde ölçme değerlendirmenin önemini daha iyi anladım.
22	Ölçme değerlendirme süreçlerinde, meslektaşlarımla işbirliği yapmanın önemli olduğuna inanıyorum.
23	Zengin ölçme değerlendirme süreçlerinin, öğrencilerin eleştirel düşüncelerine imkân sağladığını düşünüyorum.
24	Her geçen gün ölçme değerlendirmenin gerekliliğine daha çok inanıyorum.
<i>Kişisel ve mesleki gelişim faktörü: 10., 11., 12., 13., 14., 15., 16., 17., 18., 19. ve 20. maddeler.</i>	
<i>İletişim ve işbirliği faktörü: 21.,22.,23. ve 24. maddeler.</i>	
<i>Öğrenci faktörü: 1., 2., 3., 5., 7. ve 9. maddeler.</i>	
<i>Olumsuzluk faktörü: 4.,6. ve 8. maddeler. (Ters puanlanacak maddeler)</i>	



## Metaphorical Perceptions of Fourth-Grade Primary Students towards Mathematics Lesson\*

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### ABSTRACT

The aim of this study is to reveal the perceptions of fourth-grade primary students about "mathematics lesson" through metaphors and to investigate whether main categories identified regarding the common characteristics of the metaphors differed by gender. A qualitative research design was employed in the study. The study was carried out in the spring term of the 2018-2019 academic year with the participation of 116 fourth-grade students from three public primary schools in a province which is in the western Black Sea Region. The primary data source of the study is "Mathematics Lesson Metaphors Questionnaire". The data of the study was obtained by completing the blanks in the sentence 'Mathematics lesson is like ..... Because .....'. The students were asked to write down a metaphor about the mathematics lesson in the first blank and to explain the reasons why they wrote this metaphor in the second blank. The data were analyzed by content analysis method in this study. As a result of the study it is found that the fourth-grade students developed 64 different metaphors about mathematics. These metaphors are gathered in 13 subcategories under the main categories of mathematical knowledge, principles of mathematics teaching, mathematical skills, affective characteristic towards mathematics. At most metaphors are developed in the category of affective characteristic towards mathematics.

#### Keywords:

Fourth-grade primary students, mathematics, metaphorical perceptions.

### 1. Introduction

In today's world where there is an increasing need for problem-solving skills and Global Positioning System (GPS) and codes are widely used, mathematics continues to grow in importance. Mathematics is everywhere from daily routines to technological developments. Baykul (2016) contends that mathematics occupies everywhere that human exists. In this respect, being successful in all stages of life depends on knowing mathematics. This is because mathematics encountered in daily life requires individuals to possess basic mathematics knowledge (Tarm, Bulut Özsezer and Canbazoglu, 2017). Helping to develop skills in logical reasoning, mathematics is utilized as a tool for understanding the world and developing the society we live in (Yenilmez and Özbey, 2006). Developing knowledge and skills to help students make sense of physical and social world is the duty of mathematics education (Gür, Hangül and Kara, 2014). Despite such importance, however, mathematics is considered a difficult subject by many students and they may come to feel that they fail in mathematics (Başar, Ünal and Yalçın, 2002; Doğan and Sönmez, 2019; Parzys, Pesci and Bergsten, 2005). Not surprisingly, then, students cannot exhibit expected performance (Mutlu, Söylemez and Yasul, 2017). Students feel uneasy thinking they are going to fail and develop negative attitudes towards mathematics whereby they exhibit low self-confidence (Yenilmez and Özbey, 2006). Students' attitudes towards mathematics are closely related to their previous experiences (Akdemir, 2006). Particular

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phenomenon and situations students experience during the school years may affect their attitudes and even change their perceptions towards mathematics.

Metaphors are commonly employed in educational sciences to explore individuals' attitudes and perceptions (Aydın and Pehlivan, 2010; Şahinkaya and Yıldırım, 2016). Metaphors is one of the effective cognitive tool to generate insights about students' perceptions and learning styles; and infer their beliefs, attitudes, thoughts and behaviours (Ocak and Gündüz, 2006; Lakoff, 2009). Further, metaphors help individual express their positive and negative experiences (Kemp, 1999). Metaphors reflect and shape our attitudes and, in turn, determine our behavior (Strenski, 1989). In this way, it is possible to elicit information regarding a person's perception and opinions on a concept through metaphors.

The term 'metaphor' is derived from the Greek word 'metaphora'. Meta means "beyond"; pherien means "to transfer" or "to carry over". The word "metaphor" means "carrying something from one place to another" (Lakoff and Johnson, 1980/2005). While Arnett (1999) defines metaphor as a tool of perception, according to Hasırcı (2017), metaphors are used as effective, cognitive and systematic tools for purposes of constructing, navigating and functionalizing ideas about a concept. According to Silman and Şimşek (2006), metaphors can be seen as a tool to understand, describe and compare social facts (cited in: Ertürk, 2017). The metaphor is also described as a powerful mental mapping and modelling mechanism in understanding and structuring of the individuals' world (Arslan and Bayrakçı, 2006). Thereby becoming a vital tool for deciphering individuals' opinions especially about challenging concepts and topics along with abstract concepts.

Metaphors allow the individual to see a certain fact as another fact by directing the mind from a certain perception form to another (Saban, 2008b). Metaphors are also used to determine the concept traces in the minds of people by other words not related to these concepts (Güler, Akgün, Öcal and Doruk, 2012). Metaphors are yet not just figurative linguistic devices, in fact, they constitute the foundation of our thought and conception (Lakoff and Johnson, 1980/2005). It is the result of individual creativity. According to Aydın and Pehlivan (2010), creativity paves the way for the individual to associate the situations they come across and think with other elements. Therefore, metaphor functions as a bridge between feelings and knowledge (Modell, 2009). Metaphors can thus be described as identifying perception of a concept or phenomenon using similes. Lakoff and Johnson (1980/2005) denote that metaphors not only make our thoughts noticeable and interesting but also structure our perceptions and understanding.

Metaphorical perceptions are generally created in classroom environment as part of the learning process (Şahin, 2013). In terms of learning and understanding, metaphorical perceptions regarding abstract mathematical concepts is also created in classroom environment. The classroom is where students will first experience mathematics (McColm, 2007; Tarım et al., 2017). It is thus worth noting that primary schools, the first stage of primary education, is a period constructing and shaping students' perceptions towards mathematics concepts (Güveli, İpek, Atasoy and Güveli, 2011). Further, primary schools play a vital role in educating individuals and molding their future and since primary schools are the first stage of the education process, they form the basis of the whole educational life (Cerit, 2008).

An analysis of the past studies in the literature investigating metaphorical perceptions of primary school students who are at the first stage of the formal education reveals various concepts used: teacher (Ertürk, 2017), ideal classroom environment (Ekiz and Gülay, 2018), school (Cerit, 2006; Saban, 2008b), knowledge (Saban, 2008a), Social studies lesson (Güven and Güven, 2009), Turkish language lesson (Sidekli and Ünlü, 2019). A large body of literature exists that examines the metaphorical perceptions of in-service and pre-service classroom teachers who play an essential role in the lives of the primary school students on mathematics (Güler et al., 2012; Güveli et al., 2011; Kelly and Oldham, 1992; Noyes, 2006; Şahin, 2013; Şahinkaya and Yıldırım, 2016; Şengül and Katrancı, 2012).

When it comes to metaphorical studies on primary school students' perception of mathematics, it is observed that concepts such as anxiety, motivation and belief are discussed (Ersoy and Aydın, 2017; Özdemir and Sezginsoy Şeker, 2019; Solomon and Grimley, 2011; Tang, Bobis, Way and Andersen, 2015). Ersoy and Aydın (2017) studied 22 fourth-grade primary students to find out how they combined mathematics with daily life. As a result of the study, a total of 75 metaphors were classified under nine categories. Likewise, Özdemir and Sezginsoy Şeker (2019) conducted a study on mathematical anxiety of fourth-grade primary students

and comparison of metaphorical perceptions with classroom teachers. In their study, 150 primary school students produced 209 metaphors in total. On the basis of these studies, it is understood that the metaphors generated by students related to mathematics were not analyzed according to different variables.

With respect to mathematics education, primary school is a critical period in the development and construction of students' perception on mathematics (Güveli et al., 2011). Harari, Vukovic and Bailey (2013) noted that first-grade primary school students have mathematics anxiety. Hannula (2005) claims that mathematics anxiety starts at early ages in the process of education and learning, also becomes more and more. McLeod (1993) points out that the ages of 9 and 10 is particularly defined as important in the developing of mathematics anxiety (cited in: Witt, 2012). Equally important consideration is that alteration of the attitudes which were formed during this step is quite hard and it may continue also in the adulthood life (Newstead, 1998). According to Dowker (2005), math anxiety affects mathematics performance after the fourth-grade. In this sense, it is thought to be important to investigate metaphorical perceptions of fourth-grade primary students towards mathematics, and determine whether their perceptions significantly differ by gender. With this in mind, fourth-grade primary students' opinions about mathematics lessons were examined through metaphors. The research question posed in the study is "What are the metaphors produced by fourth-grade primary students towards mathematics?" Specifically, answers to the following questions were sought:

1. What are the metaphors produced by fourth-grade primary students towards mathematics lessons?
2. Under which conceptual categories can the fourth-grade primary students' metaphors about mathematics lessons be classified in terms of their common characteristics?
3. Do conceptual categories classified regarding metaphors' common characteristics differ significantly according to the students' gender?

## **2. Method**

In this section, the research model, study group, data collection tools and data analysis will be presented respectively.

### **2.1. Research Model**

A qualitative research design was employed in the study. Qualitative researches are interested in understanding how people interpret their experiences, how they construct their worlds, and what meaning they attribute to their experiences; and widely applied in educational sciences using data collection methods such as interviews, observation or documents" (Merriam, 2013). The data was collected through a written form and the metaphorical perceptions of the fourth-grade students was used to interpret how they experience mathematics and what meaning they attribute to their experiences. For this reason, the qualitative research design was chosen.

### **2.2. Study Group**

116 fourth-grade students in three public primary schools affiliated to a province which is in the western Black Sea Region in the spring term of the 2018-2019 academic year which were selected based on convenience sampling constituted the study group of the research. The convenience sampling was used because it brings speed and practice along with easy implementation (Yıldırım and Şimşek, 2008). The study group was composed of 49 (42.2%) male and 67 (57.8%) female students.

### **2.3. Data Collection Tools**

The primary data source of the study is "Mathematics Lesson Metaphors Questionnaire". The questionnaire involves two parts. The first part includes questions in regard to students' gender, the second part asks the following question "Mathematics lessons is like ..... Because....."

The students in the study group were asked to write a metaphor about mathematics lesson in the first blank of the question in the second part and explain why they use that metaphor in the second blank. Forceville (2002) suggests that in any metaphor relationship at least three basic elements are needed to be stated. These are i) the subject of metaphor, ii) the source of metaphor and iii) the features attributed from source of the

metaphor to the subject of the metaphor. In the sentence “Teacher is like a gardener”, “teacher” is the subject of the metaphor, “gardener” is the source of the metaphor” and “Teacher need to take students’ individual differences into account just like the gardener who treat their plants individually” refers to features attributed from the source of the metaphor to the subject of the metaphor (cited in: Saban, 2004). Yıldırım and Şimşek (2008) argue that each individual may attribute a different meaning to the same metaphor. Therefore, establishing a link between the source and subject of the metaphor and the purpose of the use of metaphor could be obtained by the answer given to the “why” question. For this reason, students were asked to write an explanation in the blank after the expression of “because” in the “Mathematics Lesson Metaphors Questionnaire” to find out why they use the metaphor. The data collection tool also includes a one paragraph of explanation regarding the concept of metaphor. Additionally, an example of one metaphor was presented in regard to the concept of “teacher”. Each questionnaire which students write their own metaphors is a “document” and is considered a primary data source of the research.

## 2.4. Data Analysis

Content analysis method was used to analyze the qualitative data. In content analysis, interviews, branch notes and the content of the documents are analyzed; units of measurement concentrate on how many times a speech pattern or phrase is used (Merriam, 2013). The purpose of content analysis is to conceptualize the data, identify the themes and organize and interpret them in a logical way for the readers (Yıldırım and Şimşek, 2008). The metaphors were analyzed using the five stages suggested by Saban (2009).

### 2.4.1. Coding and Extracting Stage

At this stage, the metaphors produced by the students in the study group were temporarily listed in an alphabetic order. Then, metaphors were examined to determine whether metaphors were produced in the scope of the study. The questionnaire forms including no metaphor or more than one metaphor or incoherent metaphors were found and omitted. Consequently, a total of 8 forms were omitted from the analysis. The metaphors identified in the omitted forms are: working-teaching, apple, like a nice thing, I love mathematics so much, like a nice lesson, like a very nice lesson, box, and pear.

### 2.4.2. Sample Metaphor Image Compilation Stage

Following the coding and extracting stage, the remaining metaphors were listed alphabetically once again. Then, metaphors were numbered starting from the number 1 whereby the metaphors were coded. A total of 108 valid metaphors were obtained. During the compilation stage, metaphorical expressions were re-examined. Thus, a sample of list was formed for each metaphor from the participant metaphor images assumed to best represent them. Sample metaphor expressions were directly taken from Mathematics Metaphors Questionnaire. The gender (M for male students and F for female students) of the participant who produces the metaphor, “S” code for the students’ statement and the paper number were stated in parentheses after the expression of metaphor.

### 2.4.3. Category Development Stage

The metaphors produced by the students were examined in terms of the common characteristics they have regarding the concept of “mathematics”. The metaphorical perceptions towards mathematics were evaluated in terms of the subject of the metaphor, the source of the metaphor and the relationship between the subject of the metaphor and the source of the metaphor. Each metaphor was categorized with respect to the relationship between the subject of the metaphor and the source of the metaphor. As a result, four different conceptual categories were identified.

### 2.4.4. Validity and Reliability Stage

Expert opinion was consulted regarding the four conceptual categories identified in the scope of the study whereby it was intended to determine whether these categories were represented by each metaphor under the categories. In qualitative researches, surveying expert opinions is one of the reliability methodologies (Yıldırım and Şimşek, 2008). An alphabetical list of 108 metaphors and a list of the names of four conceptual themes were submitted to a faculty member experienced in qualitative studies and the expert was asked to match these lists with each other. Therefore, both an independent expert and the researcher examined the data whereby the method of diversification of investigators were utilized ensuring reliability (Johnson and

Christensen, 2014). The lists made by the researcher and the expert were comparatively analyzed and the reliability of the results was calculated using Miles and Huberman's (1994) reliability percentage formula [reliability = agreement / (agreement + disagreement) × 100]. As a result of the calculation, the agreement rate (Agreement= 105, Disagreement= 3) was found to be 97.2%. The field expert consulted for the reliability of the given study associated three metaphors (plant, rose, game) with different themes when compared to the researcher.

#### 2.4.5. Quantitative Data Analysis Stage

After the valid metaphors and relevant conceptual categories were determined, the data was computerized. Accordingly, the metaphors in the 108 questionnaires and frequency (f) and percentage (%) values of the participants which represent four conceptual categories were calculated. In addition to that, chi-square test was performed to identify whether the conceptual categories differed according to participants' gender.

### 3. Findings

This section presents findings on fourth-grade primary students' metaphorical perceptions towards mathematics lessons according to the sub-problems of the research.

#### 3.1. Findings on Fourth-grade Primary Students' Metaphorical Perceptions Towards Mathematics Lesson

Following the coding and extracting processes, the metaphors expressed in the 108 questionnaires were analyzed. Consequently, it is found that the fourth-grade students developed 64 different metaphors about mathematics lesson. The metaphors produced were tabulated in Table 1.

**Table 1.** Fourth-grade Primary Students' Metaphorical Perceptions towards Mathematics Lesson

Item No	Metaphor	f	%	Item No	Metaphor	f	%
1	Game	14	13,0	33	Planet	1	0,9
2	Brain Game	5	4,6	34	Sky	1	0,9
3	Book	5	4,6	35	Rose	1	0,9
4	The World	5	4,6	36	Intro to Life	1	0,9
5	The Sun	5	4,6	37	The Friend in Our Life	1	0,9
6	Tree	3	2,8	38	The Rope In Our Life	1	0,9
7	Plant	3	2,8	39	A Part Of Life	1	0,9
8	Sea	3	2,8	40	Light	1	0,9
9	Life	3	2,8	41	A Mixed Wool Ball	1	0,9
10	Puzzle	2	1,9	42	Amusement Park	1	0,9
11	Monster	2	1,9	43	Music Lesson	1	0,9
12	Apple	2	1,9	44	Unhappy Face	1	0,9
13	Human	2	1,9	45	Breath	1	0,9
14	Music	2	1,9	46	Playing with Objects	1	0,9
15	Playing a Game	2	1,9	47	Playhouse	1	0,9
16	Number	2	1,9	48	Teacher	1	0,9
17	Rubik's Cube	1	0,9	49	Pudding	1	0,9
18	Key	1	0,9	50	Painting	1	0,9
19	Fire	1	0,9	51	Watch	1	0,9
20	Letter B	1	0,9	52	Art	1	0,9
21	Baklava	1	0,9	53	Computer	1	0,9
22	Our Flag	1	0,9	54	Playing with Numbers	1	0,9
23	Someone drowning me in the water	1	0,9	55	Black and White Film	1	0,9
24	Little Finger	1	0,9	56	Women's Programs	1	0,9
25	Science Book	1	0,9	57	An Infinite Straight Angle	1	0,9
26	Riding a Bike	1	0,9	58	Theater	1	0,9



Table 1 (continued) Fourth-grade Primary Students' Metaphorical Perceptions towards Mathematics Lesson

27	Sunflower Seed	1	0,9	59	Space	1	0,9
28	Chinese	1	0,9	60	Star	1	0,9
29	Multi-Storey House	1	0,9	61	Time	1	0,9
30	Nature	1	0,9	62	Water	1	0,9
31	Football	1	0,9	63	Brain Game	1	0,9
32	Ship	1	0,9	64	Cube	1	0,9
<b>Total</b>						<b>108</b>	<b>100,0</b>

As can be seen from Table 1, the fourth-grade students developed 64 different metaphors about mathematics lesson. Given the analysis of the metaphors, it is seen that the highest frequency is 14, the lowest frequency is 1. "Game" (f=14) metaphor was the most frequently repeated metaphors by students. Below are given examples related to the game metaphor:

"Mathematics lesson is like a game. Because it is more fun and nice." (S80, F),

"Mathematics lesson is like a game. Because it makes us informed." (S81, M),

"Mathematics lesson is like a game. Because playing shapes and numbers in mathematics makes you feel happy." (S73, M).

The "game" metaphor is followed by "brain game", "book", "the world" and "the sun" (f=5). To illustrate, students responded as follows:

"Mathematics lesson is like a brain game. Because it is both easy and difficult and like a brain game." (S5, F),

"Mathematics lesson is like a book. Because it contains a lot of knowledge like a book" (S62, F),

"Mathematics lesson is like the world. Because it is beautiful like the world." (S32, F),

"Mathematics lesson is like the Sun. Because it is so burning and big." (S44, M).

These metaphors were followed by "tree", "plant", "sea", "life" (f=3) in terms of the frequency level. The examples related to these metaphors are given below:

"Mathematics lesson is like a tree. Because each leaf of the tree in mathematics is a knowledge." (S2, F),

"Mathematics lesson is like a plant. Because it grows as you care" (S18, F),

"Mathematics lesson is like a sea. Because it is very beautiful." (S28, M),

"Mathematics lesson is like a life. Because as we grow up, our duties grow as well and we progress as we learn more mathematics" (S48, M).

Despite the low frequency of use, the students also used the following metaphors: "puzzle", "monster", "apple", "human", "music", "playing a game", "number" (f = 2); "Rubik's cube", "key", "fire", "letter b", "baklava", "our flag", "someone drowning me in the water", "little finger", "science book", "riding a bike", "sunflower seed", "Chinese", "multi-storey house", "nature", "football", "ship", "planet", "sky", "rose", "intro to life", "friend in our life", "rope in our life", "A part of life", "light", "a mixed wool ball", "amusement park", "music lesson", "unhappy face", "breath", "play with objects", "playhouse", "teacher", "pudding", "painting", "clock", "art", "computer", "playing with numbers", "black and white film", "women's programs", "an infinite straight angle", "theater", "space", "Star", "time", "brain game", "cube" (f=1).

Following are the examples of the metaphors produced by the students:

"Mathematics lesson is like a puzzle. Because we should think about complexities" (S22, F),

"Mathematics lesson is like a music. Because there are notes in music as well. Notes give different sounds if we forget the formulas like in mathematics, there will be no solution." (S69, M),

"Mathematics lesson is like Chinese. Because it is very complex." (S25, M),

"Mathematics lesson is like playing with numbers. Because we make arithmetic operations in mathematics using numbers such as addition, subtraction, multiplication and division. Such operations are like playing a game and we learn those numbers, operations and mathematical rules" (S99, M),

"Mathematics lesson is like a black and white film. Because it is very boring" (S100, F).

### 3.2. Findings on Conceptual Categories Classified According to the Common Characteristics of Fourth-grade Primary Students' Metaphorical Perceptions towards Mathematics Lesson

The 64 metaphors produced by students were classified under 13 categories in terms of their common characteristics. These categories were regarded as subcategories. Subsequently, they were associated with mathematics education in terms of their common characteristics and grouped under four main categories. In attempt to identify main categories, the relevant literature on mathematics education was reviewed (Altun, 2016; Baykul, 2016; Kılıç, 2019; Republic of Turkey Ministry of National Education [MoNE], 2018). In light of the findings on conceptual categories according to the common characteristics of fourth-grade primary students' metaphorical perceptions towards mathematics, the main categories, subcategories and metaphors were detailed in tables.

**Table 2.** The Category of Mathematical Knowledge and Subcategories Consisting of Metaphors

Main Category	Subcategory	Item No	Metaphor	f	%
Mathematical Knowledge	The Content of the Mathematics Lesson	1	Book	3	16,7
		2	Tree	2	11,1
		3	Brain Game	2	11,1
		4	World	2	11,1
		5	Science Book	1	5,6
		6	Apple	1	5,6
		7	Football	1	5,6
		8	Planet	1	5,6
		9	Sky	1	5,6
		10	Music	1	5,6
		11	Art	1	5,6
		12	Computer	1	5,6
			13	Brain Game	1
	<b>Total</b>			<b>18</b>	<b>100,0</b>
Mathematical Knowledge	The infinity of the Mathematics Lesson	1	Plant	2	28,6
		2	Ship	1	14,3
		3	Life	1	14,3
		4	Music	1	14,3
		5	An Infinitive Straight Angle	1	14,3
		6	Space	1	14,3
	<b>Total</b>			<b>7</b>	<b>100,0</b>
Mathematical Knowledge	The Complexity of the Mathematics Lesson	1	Human	2	25,0
		2	Rubik's Cube	1	12,5
		3	Brain Game	1	12,5
		4	Puzzle	1	12,5
		5	Chinese	1	12,5
		6	A Mixed Wool Ball	1	12,5
		7	Painting	1	12,5
	<b>Total</b>			<b>8</b>	<b>100,0</b>
Mathematical Knowledge	The Instructive Role of Mathematics Lesson	1	The Sun	3	33,3
		2	Book	1	11,1
		3	Light	1	11,1
		4	Game	1	11,1
		5	Teacher	1	11,1
		6	Playing with Numbers	1	11,1
		7	Theater	1	11,1
	<b>Total</b>			<b>9</b>	<b>100,0</b>

As can be seen in Table 2, there are subcategories under the category of mathematical knowledge, namely, the content of mathematics lesson, the infinity of mathematics lesson, the complexity of mathematics lesson and the instructive role of mathematics lesson subcategories and the metaphors produced. The category has 33 different metaphors ( $f=42$ ). After the analysis of metaphors, it is seen that the most repeated metaphors are book ( $f=3$ ) and the Sun ( $f=3$ ). Similarly, since metaphors were collected under conceptual categories according to their common features attributed from the source of the metaphor to the subject of the metaphor, book metaphor is placed under the subcategory of the content of mathematics lesson and the subcategory of the instructive role of mathematics lesson, music metaphor is placed under the subcategory of content of mathematics lesson and the subcategory of the infinity of mathematics. The brain game metaphor is placed under the subcategory of the content of mathematics lesson and the subcategory of the complexity of mathematics lesson. Below are the examples of metaphors classified under the subcategory of the content of mathematics:

“Mathematics lesson is like a football. Because there are many football players in football mathematics also have many numbers. If you ask the number of players, we add numbers.” (S38, M),

“Mathematics lesson is like planet. Because it is a lot like the world and planet. Because it includes many operations.” (S40, M),

“Mathematics lesson is like a science book. Because it includes lots of things like the science book.” (S16, M).

With reference to the metaphors in the subcategory of the infinity of mathematics, the following examples can be given:

“Mathematics lesson is like a ship. Because it sails into infinity.” (S39, M).

“Mathematics lesson is like an infinite straight angle. Because it is always necessary for us. It helps us everywhere. There is no end at all.” (S102, F).

To illustrate the metaphors related to the subcategory of the complexity of mathematics lesson:

“Mathematics lesson is like a Rubik’s cube. Because it’s so complicated, I don’t understand how to find its direction and that’s why I compare it to Rubik’s cubes” (S4, F),

“Mathematics lesson is like a mixed wool ball. Because it is so complex like a wool ball.” (S58, F).

As for the subcategory of the instructive role of mathematics lesson, the following metaphors were developed:

“Mathematics lesson is like a theatre. Because as you watch, it gives us lessons. We can find the solutions from the lessons given.” (S104, F),

“Mathematics lesson is like the Sun. Because when I study mathematics, I’m enlightened.” (S46, F),

“Mathematics lesson is like a teacher. Because it teaches and instruct us like a teacher. It knows everything.” (S90, K).

**Table 3.** The Category of Principles of Mathematics Teaching and Subcategories Consisting of Metaphors

Main Category	Subcategory	Item No	Metaphor	f	%
Principles of Mathematics Teaching	Prerequisite Relation	1	Tree	1	50,0
		2	Multi-storey House	1	50,0
	<b>Toplam</b>			<b>2</b>	<b>100,0</b>
	Representation	1	Apple	1	50,0
		2	Playing with Objects	1	50,0
	<b>Total</b>			<b>2</b>	<b>100,0</b>

As can be seen from Table 3, the category of principles of mathematics teaching consists of two subcategories which are prerequisite relationship and representation. Under the category, there are a total of 4 different

metaphors (f= 4). The fact that there is a prerequisite relationship among mathematical subjects because of the nature of mathematics and mathematics lesson has a spiral structure were seen in the metaphors produced by students.

“Mathematics lesson is like a multi-storey house. Because we learn a lot more information in each class. When we finish one, we move on to the other and we study mathematics in each class.” (S26, F),

“Mathematics lesson is like a tree. Because we climb a tree. As we do, we pass on to other subjects.” (S3, F).

When it comes to representation subcategory, students developed metaphors toward benefitting the environment to concretize mathematical concepts.

“Mathematics lesson is like an apple. Because you add, subtract, divide apples and do subtraction.” (S36, F),

“Mathematics lesson is like playing with objects. Because it looks like objects used in subtraction and addition. Because they work out about that matter.” (S72, F).

**Table 4.** The Category of Mathematical Skills and Subcategories Consisting of Metaphors

Main Category	Subcategory	Item No	Metaphor	f	%	
Mathematical Skills	Reasoning	1	Brain Game	1	12,5	
		2	Key	1	12,5	
		3	Puzzle	1	12,5	
		4	Book	1	12,5	
		5	The Rope in Our Life	1	12,5	
		6	Game	1	12,5	
		7	Watch	1	12,5	
		8	Star	1	12,5	
	<b>Total</b>			<b>8</b>	<b>100,0</b>	
	Associating with Everyday Life		1	Life	2	20,0
			2	Brain Game	1	10,0
			3	Little Finger	1	10,0
			4	The Sun	1	10,0
			5	Intro to Life	1	10,0
			6	The Friend in Our Life	1	10,0
			7	A Part of Life	1	10,0
			8	Breath	1	10,0
9			Water	1	10,0	
<b>Total</b>			<b>10</b>	<b>100,0</b>		

The metaphors given in Table 4 fall into the category of mathematical skills. This category includes two subcategories: reasoning and associating with everyday life. The subcategory of reasoning consists of eight metaphors (f=8) and the subcategory of associating with everyday life consists of nine metaphors (f=10). Although these two subcategories do not have any metaphors in common, both of them contains different metaphors related to everyday life. Below are the examples of metaphors produced with respect to the subcategory of reasoning:

“Mathematics lesson is like a puzzle. Because there is always a question in it and you can solve the question with intelligence. It improves brain cells and intelligence.” (S21, M),

“Mathematics lesson is like a rope in our life. Because it is like time, numbers and problems. If it doesn’t exist, nothing in our brain can improve the intelligence as it does.” (S53, F),

“Mathematics lesson is like a chess. Because it works our brains like mathematics.” (S94, F).

When it comes to the metaphors collected under the subcategory of associating with everyday life as part of the mathematical skills, following statements were made:

“Mathematics lesson is like a life. Because wherever I look at life, I see mathematics. For example, there is a math lesson in hopscotch. There is a pattern in the carpet. For example, there is a rounding at the grocery and market. That’s why mathematics is like a life” (S49, F),

“Mathematics lesson is like the Sun. Because mathematics is used in every area of our lives. There is always the Sun in our life just like mathematics.” (S47, M),

“Mathematics lesson is like a little finger. Because it occupies a small place in my life. Mathematics is not everywhere.” (S99, M).

**Table 5.** The Category of Affective Characteristic towards Mathematics and Subcategories Consisting of Metaphors

Main Category	Subcategory	Item No	Metaphor	f	%
Affective Characteristic Towards Mathematics	Love	1	The World	2	11,1
		2	Game	2	11,1
		3	Number	2	11,1
		4	Letter B	1	5,6
		5	Baklava	1	5,6
		6	Our Flag	1	5,6
		7	Riding a Bike	1	5,6
		8	Sunflower Seed	1	5,6
		9	Sea	1	5,6
		10	Nature	1	5,6
		11	Rose	1	5,6
		12	Music Lesson	1	5,6
		13	Playhouse	1	5,6
		14	Pudding	1	5,6
		15	Cube	1	5,6
	<b>Total</b>			<b>18</b>	<b>100,0</b>
Affective Characteristic Towards Mathematics	Fun	1	Game	10	76,9
		2	Playing a Game	2	15,4
		3	Amusement Park	1	7,7
	<b>Total</b>			<b>13</b>	<b>100,0</b>
	Time passes quickly	1	Time	1	100,0
	<b>Total</b>			<b>1</b>	<b>100,0</b>
Affective Characteristic Towards Mathematics	Dislike-Punishment	1	Monster	2	18,2
		2	Fire	1	9,1
		3	Someone Drowning Me in the Water	1	9,1
		4	Plant	1	9,1
		5	Sea	1	9,1
		6	The World	1	9,1
		7	The Sun	1	9,1
		8	Unhappy Face	1	9,1
		9	Black and White Film	1	9,1
		10	Women’s Programs	1	9,1
	<b>Total</b>			<b>11</b>	<b>100,0</b>
	Motivation	1	Sea	1	100,0
	<b>Total</b>			<b>1</b>	<b>100,0</b>

The category of affective characteristics towards mathematics includes the following subcategories: love, fun, time passes quickly, dislike-punishment and motivation. When it comes to the number of metaphors in each subcategory, it is as follows: fifteen metaphors for love subcategory (f=18), three metaphors for fun subcategory (f=13), ten metaphors for dislike-punishment subcategory (f=11) and one metaphors for motivation subcategory (f=1). As seen in the Table, students generally have positive (love, fun, time passes quickly and motivation) affective characteristics about mathematics. Game metaphor is the most frequently (f=10) used metaphor in the category. Following are the examples of metaphors expressed in the love subcategory;

“Mathematics lesson is like our flag. Because it is full of love like our flag.” (S14, F),

“Mathematics lesson is like a game. Because I feel happy as I solve problems. I want to solve more” (S86, M).

Regarding the fun subcategory, following are examples of the metaphors produced by students.

“Mathematics lesson is like an amusement park. Because you begin a journey with those numbers. Like a ferris wheel, numbers rotate around you and it is fun.” (S66, F),

“Mathematics lesson is like a playing a game. Because it is always more interesting to teach mathematics with fun.” (S89, F).

As to the time passes quickly subcategory, one metaphor was created. It is “Mathematics lesson is like time. Because time passes quickly whilst solving mathematics problem.” (S107, F).

To illustrate the metaphors in the dislike-punishment subcategory including negative affective characteristics towards mathematics, the following metaphors can be given:

“Mathematics lesson is like someone drowning me in the water. Because I never like mathematics. Because the teacher teaches mathematics at all free times. For example, when there is no physical education, the teacher always always always teaches mathematics. So I dislike mathematics, I’m bored in mathematics.” (S15, M),

“Mathematics lesson is like a monster. Because the teacher instructs to memorize, it makes me bored very much. The teacher gives us homework, my mother tells me to do it.” (S23, M).

In the subcategory of motivation, there is one metaphor as follows: “Mathematics lesson is like a sea. It waves my courage.” (S27, F)

### 3.3. Findings on the Whether Main Categories Regarding the Common Characteristics of the Metaphors Differ by Gender

Findings on whether four main categories identified regarding the common characteristics of the metaphors differed by gender were presented in Table 6.

**Table 6.** Differentiation Status of Main Categories by Gender

Main Category	Female (n= 62)		Male (n=46)		Total (n=108)	
	f	%	f	%	f	%
Mathematical Knowledge	24	(38,7)	18	(39,1)	42	(38,9)
Principles of Mathematics Teaching	4	(6,5)			4	(3,7)
Mathematical Skills	8	(12,9)	10	(21,7)	18	(16,7)
Affective Characteristics Towards Mathematics	26	(41,9)	18	(39,1)	44	(40,7)

$$\chi^2(4, N=108) = 3,943, sd= 3, p=0, 257$$

As detailed in Table 6, female students produced metaphors more frequently than male students in the categories of mathematical knowledge, principles of mathematic teaching and affective characteristics towards mathematics, while male students produced metaphors more frequently than female students in the category of mathematical skills. On the basis of the general evaluation in Table 6, no statistically significant difference was found among the conceptual categories in terms of the students’ gender.

#### 4. Discussion and Conclusion

The present study which sets out to identify fourth-grade students' metaphorical perceptions towards mathematics lesson yielded very striking results. Because identifying and understanding students' metaphors for mathematics will give information about students' views about mathematics (Schink, et al., 2008). Given that frequency values of 64 metaphors developed by fourth-grade primary students, the highest frequency is 14, the lowest frequency is 1. "Game" was the most frequently used metaphor. The result that students associated the mathematics lesson with game might be because students still are going through period of development and for this reason they are interested in playing and they need to play. The game metaphor produced, on the other hand, might be the result of the fact that students find mathematics fun, while they may tacitly deliver a message reporting "It is always more interesting to teach mathematics with fun". Due to their developmental stage, students have a tendency to get bored quickly and they have lots of energy. Considering these factors will make mathematics lesson more effective (Ekiz and Gülay, 2018). Because "the perception that will occur against a lesson affects the success of the lesson significantly" (Şahin, 2013). According to the findings of the study, the students developed 64 metaphors related to mathematics. When we look at the previous metaphorical studies in the literature, Şengül et al. (2014) reported in their study on the secondary school students' metaphorical perceptions of mathematics teachers that students produced 137 metaphors. In a similar vein, 200 pre-service classroom teachers participated in the study of Güveli et al. (2011) and a large number of metaphors were produced related to the concept of mathematics. Similar results were also seen in other metaphorical studies on such concepts as microscope, mathematics, mathematics lesson and mathematics teacher and the amount of metaphor generated was high. (Ekici, 2016; Özdemir et al., 2019; Şahin, 2013; Şahinkaya et al., 2016; Tarım et al., 2017). Consequently, the findings of the study were consistent with the results of the above mentioned studies. Considering metaphor as the way the individual perceive a concept or phenomenon, it is acceptable that a large number of metaphors were produced with respect to the mathematics lesson. Each student has a different perception about mathematics lesson as well as having different experiences, prior knowledge and observations about the lesson. It is also worth mentioning that some findings of the study contradict other studies in the literature. According to the study of Güler et al. (2012), 140 secondary pre-service mathematics teacher developed 28 metaphors about the concept of mathematics. Here the contradiction can be related to the age and education difference of the study group. Because fourth-grade primary students' perceptions of mathematics are different from the pre-service teachers' perceptions of mathematics. Mathematics conceptually has a broad, complex and abstract structure and this is the one reason underlying different perceptions (Güveli et al., 2011).

The 64 metaphors obtained in the study were gathered under 13 subcategories according to their common features. Considering the mathematics literature, those subcategories were classified according to their common characteristics (Altun, 2016; Baykul, 2016; Kılıç, 2019; MoNE, 2018). Consequently, four main category were obtained. The content of mathematics lesson, the infinity of mathematics lesson, the complexity of mathematics lesson and the instructive role of mathematics subcategories were associated with the structure of mathematics lesson and subsequently they were classified under the main category of "Mathematical Knowledge". In the study carried out by Özdemir and Sezginsoy Şeker (2019), the scope of mathematics and part-whole relationship subcategories were placed in the category of mathematical knowledge. It can be argued that the finding of these two studies are similar to each other. In another study examining pre-service classroom teachers' metaphorical perceptions of science and math, a great majority of pre-service teachers used following metaphors to describe mathematics: complex, tough, confusing, skill, achieve (Cassel and Vincent, 2011). This result is parallel to subcategories and metaphors that fell into under the category of mathematical knowledge. In this study, while 4 main categories and 13 subcategories were reached, Latterell and Wilson (2016) reached twelve categories as a result of the research in which the pre-service elementary teachers examined the metaphor perceptions of mathematics. The high number of categories and subcategories may depend on the students' views about the nature of mathematics because of the interpretations of the mathematics in their own lives, both within and outside the school (Cameron, 2003).

The prerequisite relationship and representation subcategories which were created from metaphors fell into the "The Principles of Mathematics Teaching" main category. The subcategories show similarity with the effective mathematics teaching principles suggested by Altun (2016). Therefore, the subcategories developed

in regard to the characteristics of metaphors are supported by the literature. However, it is important to note that these two subcategories that demonstrate similarities with the principles are not adequate. Since mathematics involves abstract concepts because of its nature, it may result in negative results that lead students to anxiety (Ersoy and Aydın, 2017). Students' attitude and anxiety cause to withdrawal from mathematics and prevent the development of mathematical skills (Kutluca, Alpay and Kutluca, 2015). Improving mathematical skills depends on an effective mathematics teaching that is to say, paying attention to principles. (Altun, 2016). For this reason, the two categories are not deemed adequate. According to Erdoğan, Yazlık and Erdik' study (2014), mathematics teacher candidates perceived mathematics as "Cumulative" and "Interconnected". Similarly, Schinck et al. (2008) expressed that students described mathematics as "an Interconnected Structure". The finding of prerequisite relationship obtained in the study is consistent with the finding of these two studies. This also highlights that individuals who are connected to mathematics have a knowledge of mathematical structure.

"Mathematical Skill" category consists of two subcategories, namely, reasoning and associating with everyday life. Ersoy and Aydın (2017) studied 22 fourth-grade primary students and concluded that students categorized the most 'life itself category'. Similarly, Güler et al. (2012), Güner (2013) along with Tarm et al. (2017) found similar findings indicating the relationship between mathematics and life. Associating mathematics with everyday life can be supported by the fact that students feel they need mathematics in real life as well as the fact that mathematics is based on conceptual understanding. In addition to that, Yenilmez and Uysal's study (2017) confirm the present study which fourth-grade students associated mathematics with real life. According to Yenilmez and Uysal (2017), fourth-grade students demonstrated higher success than fifth and sixth grade students in terms of associating mathematical expression and symbols with daily life. This might be a sign of concretization of mathematics subjects and expressions or a result of the cognitive developmental characteristics of fourth-grade students.

While 10 out of 30 total metaphors in the main category of affective characteristics towards mathematics are in the subcategory of dislike-punishment, of 20 are in the subcategory emphasizing positive affective characteristics. It is of vital importance that students have positive affective characteristics towards mathematics lesson. Mathematics depends not only on cognitive abilities but also on emotional factors and attitudes (Thomas and Dowker, 2000). Affective dimension is a core part of cognitive structure. Therefore, learning is positively affected by positive affective situations, whereas it is adversely affected by negative affective situations (Ekici, 2016). The most important fact that prevent the abilities of successful students in mathematics, is negative attitudes of students towards mathematics (Hembree, 1990). Further, the fact that students developed affective metaphors toward mathematics, it can be implied that metaphors have both cognitive and affective aspects (Eren and Tekinarslan, 2013). The mathematics curriculum also underlines the importance of encouraging positive affective attitudes and conducting assessment and evaluation studies not only for cognitive skills but also for affective and psychomotor skills (MoNE, 2018). It is thus evident that the metaphors produced by students are considered in learning-teaching processes of the curriculum development. The result that the most repeated metaphors are related to positive affirmative characteristics are consistent with the study of Özdemir and Sezginsoy Şeker (2019) showing that students produced mostly the metaphor for subtheme of developing positive attitude related to mathematics. Similarly, in the study of Ummanel (2017), the metaphors of preschool, primary and secondary school students towards mathematics were examined, it was concluded that students in general have a positive attitude about mathematics. The development of metaphors with positive affective characteristics as to mathematics lesson indicates that mathematics holds an important place among students.

As a result of the analysis conducted to determine whether the four main categories consisting of metaphors differed according to students' gender, no statistically significant difference was found regarding the categories of metaphors produced by female and male students. Likewise, Şengül et al. (2014) reported that the concepts produced related to the concept of 'mathematics teacher' did not differ by gender.

Metaphors are one of the most important perception tools and are important in revealing the causes of educational beliefs (Ben-Peretz, Mendelson and Kron, 2003). As a matter of fact, given the metaphors produced in the scope of the study, two different perceptions emerged as follows: "Wherever I look in my life, I see mathematics. For example, there is a mathematics lesson in hopscotch. There is a pattern in the carpet. For example, there is a rounding at the grocery and market. That's why mathematics is like a life"



and “It hold a small place in my life. Mathematics is not at everywhere.” It is noticed that mathematics was correlated with everyday life in the first statement, whereas the principle of association was neglected in the second statement. This attitude is also observed in the students’ answers in regard to their perception of mathematics. In the similar vein, two examples of metaphors generated by students “Mathematics is like a music. Because there are notes in music. Notes gives different sounds. If we forget the formulas like in mathematics, there will be no solution” and “The teacher instructs to memorize, it makes me bored very much. The teacher gives us homework; my mother tells me to do it.” proves that the emphasis is given to procedural knowledge rather than conceptual knowledge in mathematics lessons. The idea that mathematics is based on a memorization with full of formulas rather than learning with understanding lead students to adopt negative affective features towards mathematics. Likewise, the expression “I never like mathematics. Because the teacher teaches mathematics at all free times. For example, when there is no physical education, the teacher always always always teaches mathematics. So I dislike mathematics, I’m bored in mathematics” reminds the importance of integrity in terms of child development stages. When teachers lecture mathematics longer than the time allocated in the weekly schedule, students see mathematics as a punishment tool, thereby exhibiting negative affective attitudes towards mathematics. This is also confirmed by the study of Başar et al. (2002). In their study, they observed that that the importance of art, music and physical education lessons which are expression and skill lessons are underestimated and are not regarded as lessons, whereas mathematics is misleadingly seen as an important lesson and particularly male students reacted to instruction of expression and skills lessons instead of mathematics. It can thus be argued that teachers have a vital place in determining students’ affective features.

## 5. Suggestions

Conducting metaphorical studies on primary school students after each subject they learn in mathematics classes, it is suggested to gain insight into primary school students’ perceptions of mathematics subjects as well as their affective characteristics, thereby designing learning-teaching process properly.

Further metaphorical studies on mathematics lesson can dwell on students’ academic achievement in mathematics and the relationship between student achievement and metaphors can be investigated.

The results of the study denoted that “game” is the most frequently used metaphor by students. In this respect, primary school mathematic lessons can be taught by playing games and make learning fun.

Given the metaphors produced by students, there are some vague expressions. For example, given the statement “It is always more interesting to teach mathematics with fun”, it is hard to infer whether students mean the mathematics lesson they perceive through real-life experiences or mean their dream mathematics lesson. For this reason, further metaphorical studies can be performed comparing students’ perceptions of mathematics classes in real life with their dream mathematics.

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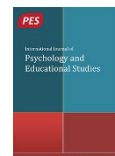
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## The Effect of Mindfulness of Physical Education and Sports Teacher Candidates on Empathic Tendency\*

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### ABSTRACT

The aim of the study is to determine the effect of mindfulness of physical education and sports teacher candidates on the empathic tendency. It was suggested that the mindfulness level of the participants had a positive effect on the empathic tendency. In the research, a theoretical modeling that shows the possible relationships between these variables was created and this model was tested using structural equation modeling. The sample of the study consists of 95 female and 115 male participants studying at the Department of Physical Education and Sports Teaching of Gazi University Faculty of Sport Sciences in the spring semester of 2019-2020. In this research, convenience sampling technique, which is one of the purposeful sampling methods, was used. As data collection tools, "The Empathic Tendency Scale" developed by Lawrance, Shaw, Baker, Baron-Cohen and David (2004) and adapted to Turkish language by Kaya and Çolakoğlu (2015) and "The Mindfulness Scale", which was developed by Brown and Ryan (2003) and adapted to Turkish language by Özyeven, Arslan, Keser and Deniz (2011), were used. When the results of the structural equation modeling between participants' mindfulness and empathic tendency are examined, it was determined that mindfulness did not affect cognitive empathy and emotional empathy ( $\beta_1=.13$ ,  $\beta_2=.09$ ;  $p>.05$ ), but it positively affected social skill ( $\beta_3=.15$ ;  $p<.05$ ). The value of Squared Multiple Correlations ( $R^2$ ) of the modeling shows that 03% of social skills, 008% of emotional response and 018% of cognitive empathy are explained. As a result of this, it can be stated that the participants being aware of the emotions they experience, experiencing the moment, realizing the tensions in their environment, absorbing for what purpose they perform the task they carry out make it easier for them to communicate with different people, to share physically and socially, and to understand people's feelings and thoughts.

Keywords:

Mindfulness, empathy, structural equality, sports science, university.

### 1. Introduction

Teachers are responsible for developing the characteristics of students, who will form the future, such as problem solving, effective communication, reflective thinking (Eacute and Esteve, 2000). This responsibility raises the necessity to question some of the qualifications that teacher candidates should also have as a matter of concern to teachers. It is considered that the level of empathy is also important among the concepts that should be addressed in this context. Since empathy is a communication skill that can be measured and developed with appropriate education (Dökmen, 1990), it is important to determine the level of empathy that should be considered for teachers when they are candidates.

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Empathy, which is treated as a process, is comprehensively addressed by Rogers' definition. According to Rogers, empathy is "the process of a person putting himself/herself in the place of the other, looking at the events from his/her point of view, and understanding the feelings and thoughts of that person correctly, feeling what s/he feels and conveying this situation to him in this direction (Dökmen, 2001). Although it is possible to come across different definitions of empathy as a result of different focuses, today, in general, we can define empathy as a process of a person putting himself/herself in the place of the other and looking at the events from his/her point of view by understanding the feelings and thoughts of that person correctly, and feeling what s/he feels and conveying this situation to him in this direction or as having objective awareness about the feelings and thoughts of others and their meanings and being able to live them as a representation (Budak, 2000). In addition, empathy is a reflex that is born as a response to the emotional state and cognitive state of the individual and provides continuity (Eisenberg and Strayer, 1987).

It is useful to examine the factors that will affect the communication between the teacher and the student who are within the education process. Unlimited communication in the process can of course cause conflicts. Although these conflicts are ignored from time to time, many of them should be and are resolved in favor of teachers or students (Duru, 2002). Ensuring correct communication by removing the conflict environment is important for the education process (Uğur and Çolakoğlu, 2019). Some of these conflicts are from communication. These conflicts must be overcome in order not to negatively affect the quality of education and training. Moving from these points, importance should be given to the studies for the development of empathy, which is an important skill for organizing and developing teachers' relations with their students. In this context, it is thought that the mindfulness level is important for teacher candidates. It is known that mindfulness also regulates behavior with the benefit it provides to regulate emotional responses (Keng, Smoski and Robins, 2011).

Mindfulness is a method of attention orientation from the eastern meditation tradition (Kabat-Zinn, 1994). In this method, the person focuses on what is experienced only by accepting without judgment on the basis of Buddhist philosophy and practices (Bodhi, 2011; Kabat and Zin, 1994; Brown and Ryan, 2003). It is defined as the awareness provided by conscious focus at the moment of living without judgment (Kabat and Zin, 2003). The factor to be considered is the ability to provide "increased" attention and awareness towards the current life (Brown and Ryan, 2003). What lies in the emergence of the concept is the idea that the individual unwittingly detailed the events s/he experienced by being influenced by his/her past experiences and accordingly an unnecessary pain is experienced with the misleading of subjective facts. According to the concept of mindfulness, "remembering" is not to be influenced by the past, but to be able to sustain attention and awareness within the moment experienced (Germer, Siegel, and Fulton, 2005). When the literature is examined, although there are different views in the Turkish meaning or equivalent of the concept of "mindfulness", the concepts of attention, intention and attitude are mentioned in common. Attention refers to focusing and realizing the moment experienced, intention refers to the attention being directed and used purposefully, and the attitude refers to acceptance and not making a judgment in directing attention (Shapiro et al, 2006). Mindfulness can be defined as the coordinated and continuous use of these features.

Many features in the life of individuals play a role in the formation of qualified behavior patterns. Their perspective on innovation directly contributes to this process (Kurtipek and Güngör, 2019). Mindfulness is also important in order to correctly understand what is happening in the person's relationships with different individuals around him/her and in his/her everyday life. Individuals with a high level of mindfulness are one step ahead in focusing themselves on the work they do, working towards a specific goal and adapting to changes in their environment.

Based on these points, in our research, it was aimed to determine the level of mindfulness of students at the Department of Physical Education and Sports Teaching to predict empathic tendency. It is known that high mindfulness helps individuals use harmonious coping strategies (Weinstein, Brown and Ryan, 2009) and is associated with concepts such as self-regulation behaviors and positive emotional states (Brown and Ryan, 2003). In recent years, it is seen that the focus of education is in the literature (Leland, 2015; Stanzus et al, 2017). Mindfulness enables individuals to focus more deeply on the subjects they work on and also contributes to personal development. The high level of mindfulness of teacher candidates will undoubtedly help them to convey their goals in their professional lives. However, having a teacher empathy skill can help students understand. For this reason, it is predicted that a teacher with a high level of mindfulness and

empathy will be more successful. This research is important in order to show the pre-service teachers' mindfulness levels and empathy skills before they start their profession. In addition, it is thought that the results obtained within the scope of the research will contribute to the literature in terms of determining the aspects of prospective teachers that need to be improved.

## 2. Method

### 2.1. Research Model and Hypotheses

This study, which aims to determine the power of mindfulness level of students at the Department of Physical Education and Sports Teaching to predict empathic tendency, is a descriptive research using relational screening model. Relational screening model is a research model that aims to determine the presence and/or degree of co-change between two or more variables (Fraenkel and Wallen, 2009; Karasar, 2013). In the research, a model was created as a result of the literature review. This model was tested using structural equation modeling. Structural equation is a combination of factor analysis and regression analysis and is a theoretical structure represented by latent and observed variables (Şimşek, 2007). The hypotheses of the model created in accordance with the purpose of the research as a result of the literature review are given below:

**H<sub>1</sub>:** Mindfulness positively affects cognitive empathy.

**H<sub>2</sub>:** Mindfulness positively affects emotional response.

**H<sub>3</sub>:** Mindfulness positively affects social skills.

### 2.2. Study Group

The sample of the study consists of a total of 210 participants, 95 of whom (45.2%) are female and 115 (54.8%) are male, studying at the department of Physical Education and Sport Teaching in a public institution providing sports education. 65 (31.0%) of the participants study in the first grade, 34 (16.2%) in the second grade, 48 (22.9%) in the third grade and 63 (30.0%) in the fourth grade. In addition, the average academic success of the participants was determined as 2.89. Purposeful sampling method was used to determine the study group. In the purposeful sampling method, the researcher selects the sampling in accordance with the criteria previously determined and conducts the research (Cohen, Manion and Morrison, 2000).

### 2.3. Data Collection Tools

Within the scope of the research, The Mindfulness and The Empathetic Tendency Scales as well as personal information form were used as data collection tools.

*The Mindfulness Scale* was developed by Brown and Ryan (2003) and adapted to Turkish by Özyeven, Arslan, Keser and Deniz (2011). The scale consisting of 15 items in total has a 6-point Likert structure. The internal consistency coefficient of the scale is .80. Cronbach Alpha internal consistency coefficient obtained from the data set used in the study was determined as .86.

*The Empathic Tendency Scale* was developed by Lawrence, Shaw, Baker, Baron-Cohen and David (2004) and adapted to Turkish by Kaya and Çolakoğlu (2015). The scale is designed in a 5-point Likert structure and consists of 13 items and 3 sub-dimensions. These sub-dimensions are cognitive empathy, emotional response and social skills. While the internal consistency coefficient of the scale was found to be .86 for the whole, it was found to be .61 for the social skills sub-dimension, .75 for the emotional response sub-dimension and .74 for the cognitive empathy sub-dimension. Cronbach Alpha internal consistency coefficients obtained from the data set were determined as .88, .70, .79 and .77, respectively.

#### 2.3.1. Confirmatory Factor Analysis of Measurement Tools Used in the Research

Confirmatory factor analysis results of the The Mindfulness and The Empathic Tendency Scales used in the study are given in the table below.



**Table 1.** The Mindfulness and The Empathic Tendency Scale confirmatory factor analysis results

Model Fit Index	Perfect Range	Acceptable Range	MS	ETS
$\chi^2/sd$	$0 < \chi^2/sd < 2$	$2 < \chi^2/sd < 5$	2.26	2.42
RMSEA	$0.00 < RMSEA < 0.05$	$0.05 < RMSEA < 0.10$	.07	.08
PGFI	$0.95 < PGFI < 1.00$	$0.50 < PGFI < 0.95$	.66	.60
PNFI	$0.95 < PNFI < 1.00$	$0.50 < PNFI < 0.95$	.68	.64
GFI	$0.90 < GFI < 1.00$	$0.85 < GFI < 0.90$	.89	.91
AGFI	$0.90 < AGFI < 1.00$	$0.85 < AGFI < 0.90$	.58	.86
CFI	$0.95 < CFI < 1.00$	$0.90 < CFI < 0.95$	.91	.90

Schermelleh-Engel & Moosbrugger, 2003; Kline, 2005; Tabachnick & Fidell, 2007; Thompson, 2004; Jöreskog & Sörbom, 1993, Meydan & Şeşen, 2011.

First-level confirmatory factor analysis was applied to test the construct validity of The Mindfulness Scale, and multi-factor confirmatory factor analysis was applied to test the construct validity of The Empathic Tendency Scale. In order to make the analysis results more compatible, covariance assignment was made between the error terms of items 9 and 10 of The Mindfulness Scale. In order to test the construct validity of The Empathic Tendency Scale, multi-factor confirmatory factor analysis was applied. The model index values were renewed with the removal of item 5 in accordance with the recommendations of the Amos 22 package program and are given in Table 1. Therefore, the single-factor structure of The Mindfulness Scale and the three-factor structure of The Empathic Tendency Scale were confirmed.

## 2. 4. Data Analysis

During the analysis of the data, firstly KMO and Barlett tests were applied and the suitability of the data for factor analysis was tested. KMO value was determined as .87 for The Mindfulness Scale and .82 for The Empathic Tendency Scale. In addition, the result of the Barlett test was determined as significant for the scales used in the study ( $p < .001$ ). Therefore, the suitability of the data for factor analysis has been proved. Afterwards, Shapiro-Wilk test was performed to determine whether the dataset was normally distributed. As a result of the significance of Shapiro-Wilk test, it was found  $p < .05$  for the scales used in the research. Upon this, Skewness and Kurtosis values were examined. These values are between -1.5 and +1.5 for all three scales. This shows that the data were normally distributed (Tabachnick and Fidell, 2013). In the study, the demographic characteristics of the participants were shown with percentage and frequency, and the mean scores obtained from the scales were expressed through descriptive statistics.

In the research, the theoretical model created was tested by establishing a structural equation modeling. Structural equation modeling is accepted as the basic method especially in studies where there are multiple relationships between latent and observed variables (Şimşek, 2007; Bayram, 2010). The analyses in this study were carried out using SPSS 22.0, AMOS 22.0 package programs and Excel database program.

## 3. Results

This section includes the findings obtained by analyzing the data from the study group.

**Table 2.** Mean scores of participants from The Mindfulness and The Empathic Tendency Scales

Scales	n	Min.	Max.	$\bar{x}$	S
Cognitive Empathy Sub-Dimension	210	2.00	5.00	4.06	.99
Emotional Response Sub-Dimension	210	1.00	5.00	4.28	.95
Social Skills Sub-Dimension	210	1.50	5.00	3.63	.97
Empathic Tendency Scale	210	1.77	5.00	4.00	.87
Mindfulness Scale	210	1.47	6.00	3.84	.67

The mean score of the participants from the “cognitive empathy” sub-dimension was determined as ( $\bar{x}=4.06$ ), from the “emotional response” sub-dimension as ( $\bar{x}=4.28$ ) and from the “social skills” sub-dimension as ( $\bar{x}=3.63$ ) and the mean score obtained from The Empathic Tendency Scale was determined as ( $\bar{x}=4.00$ ). Also, the

mean score from The Mindfulness Scale is ( $\bar{x}$ =3.84). The highest score obtained from the Empathic Tendency Scale sub-dimensions of the Emotional Response sub-dimension of the participants represents the mean score.

**Table 3.** T-test results of the mean scores of participants from The Mindfulness Scale, The Empathic Tendency Scale and its sub-dimensions according to gender variable

Scales	Gender	n	$\bar{x}$	S	sd	t	p
Cognitive Empathy S. D.	Female	95	4.15	.57	208	1.76	.07
	Male	115	3.99	.71			
Emotional Response S.D.	Female	95	4.46	.50	208	3.52	.001
	Male	115	4.13	.78			
Social Skills S.D.	Female	95	3.64	.48	208	.06	.95
	Male	115	3.63	.58			
Empathic Tendency S.	Female	95	4.09	.38	208	2.38	.01
	Male	115	3.92	.57			
Mindfulness S.	Female	95	3.73	.74	208	-1.51	.13
	Male	115	3.91	.92			

The mean score of female participants from The Empathic Tendency Scale is ( $\bar{x}$ =4.09), and the mean score of male participants is ( $\bar{x}$ =3.92). The mean scores of female participants from the cognitive empathy, emotional response and social skill sub-dimensions were calculated as ( $\bar{x}$ =4.15,  $\bar{x}$ =4.46,  $\bar{x}$ =3.64), respectively, while that of male participants were determined as ( $\bar{x}$ =3.99,  $\bar{x}$ =4.13,  $\bar{x}$ =3.63). It was determined that the results of the analysis showed a significant difference in favor of the female participants in the total score of The Empathic Tendency Scale and the mean score obtained from the emotional response sub-dimension,  $t(208)=-.01$ ,  $p<.05$ ;  $t(208)=-.001$ ,  $p<.05$ . Nonetheless, no significant difference was found between the mean scores of the participants from the cognitive empathy and social skills sub-dimensions and the gender variable,  $t(208)=-.07$ ,  $p>.05$ ;  $t(208)=-.95$ ,  $p>.05$ . In addition, the mean score of female participants from The Mindfulness Scale is ( $\bar{x}$ =3.73) and that of male participants is ( $\bar{x}$ =3.93). The results of the analysis show that there is no statistical significance between the mean score of the participants from The Mindfulness Scale and the gender variable,  $t(208)=-.13$ ,  $p>.05$ .

### 3.1. Findings for Examining Empathic Tendency with Path Analysis

Correlation analysis was used to test the relationships between "mindfulness" and "cognitive empathy", "emotional response" and "social skills" which are the variables observed when performing the analysis of the data obtained from the study group. The relationships between the variables examined within the scope of the research were examined using the Pearson Moments Product Correlation Analysis method. Analysis results are given in Table 4.

**Table 4.** Investigation of the relationship between variables with Pearson Moment Product Correlation

Variable	Cognitive Empathy	Emotional Response	Social Skills	Mindfulness
Cognitive Empathy	1			
Emotional Response	.62**	1		
Social Skills	.30**	.33**	1	
Mindfulness	.13**	.05**	.10**	1

When Table 3 is taken into consideration, it was determined that there is a low level and positive relationship between the "cognitive empathy", "emotional response" and "social skills" and "mindfulness" total scores of the participants ( $r_1=.13$ ,  $p<.01$ ;  $r_2=.05$ ,  $p<.01$ ;  $r_3=.10$ ,  $p<.01$ ).

With the examination of the relationships between the latent and observed variables of the research, the predictive effect of the mindfulness variable on the variables "cognitive empathy", "emotional response" and "social skills" was tested by path analysis.

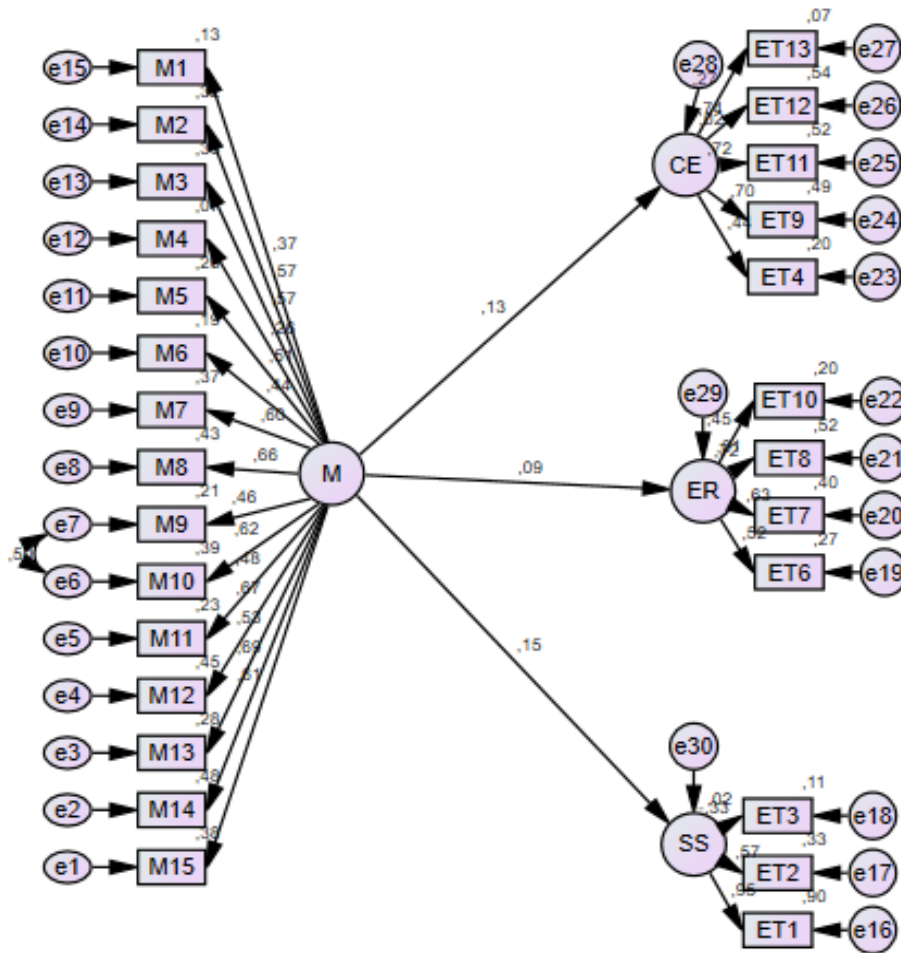


Figure. Structural equation modeling

The fit index values of the model given in Figure 1 are shown in Table 5.

Table 5. Structural equation modeling fit index values

Model Fit Index	Perfect Range	Acceptable Range	YEM
$\chi^2/sd$	$0 < \chi^2/sd < 2$	$2 < \chi^2/sd < 5$	2,38
RMSEA	$0.00 < RMSEA < 0.05$	$0.05 < RMSEA < 0.10$	,08
PGFI	$0.95 < PGFI < 1.00$	$0.50 < PGFI < 0.95$	,70
PNFI	$0.95 < PNFI < 1.00$	$0.50 < PNFI < 0.95$	,62
GFI	$0.90 < GFI < 1.00$	$0.85 < GFI < 0.90$	,89
AGFI	$0.90 < AGFI < 1.00$	$0.85 < AGFI < 0.90$	,86
CFI	$0.95 < CFI < 1.00$	$0.90 < CFI < 0.95$	,94

Schermelleh-Engel & Moosbrugger, 2003; Kline, 2005; Tabachnick & Fidell, 2007; Thompson, 2004; Jöreskog & Sörbom, 1993, Meydan & Şeşen, 2011.

When Table 5 is taken into consideration, it is seen that the goodness of fit values of the model provide the necessary conditions and the model created is verified ( $\chi^2/sd= 2.38$ , RMSEA= .08, PGFI= .70, PNFI= .62, GFI= .89, AGFI= .86, CFI= .94). Along with examining the fit index values of the model, the paths stated in the model and parameter predictions of the model were examined. coefficients, standard error, critical ratio, p and R2 values between variables are shown in Table 6 according to the model designed.

Table 6. Structural equation modeling results

Variables	Standardize $\beta$	Standard Error	Critical Ratio	p	R <sup>2</sup>	
Mindfulness	Cognitive empathy	.13	.02	1.14	.14	.018
	Emotional response	.09	.03	1.00	.31	.008
	Social skills	.15	.06	1.96	.04	.024

p<.05

Analysis results show that there is a statistically significant difference in the relationship of mindfulness with social skills ( $\beta_3=.15$ ;  $p<.05$ ). However, no statistical significance was found in the relationship of mindfulness with cognitive empathy and emotional response ( $\beta_1=.13$ ;  $p>.05$ ;  $\beta_2=.09$ ;  $p>.05$ ). In addition to this, when the model's Squared Multiple Correlations ( $R^2$ ) value is examined, it can be stated that mindfulness explains cognitive empathy by .018%, emotional response by .008% and social skills by .024%. Therefore, while the hypotheses 1 and 2 created within the scope of the research were rejected, the hypothesis number 3 was accepted.

#### **4. Discussion**

In this study, a structural equation modeling was designed by determining the levels of mindfulness and the empathic tendency of students studying in physical education and sports teaching. In addition, the mean scores of the participants from the measurement tools were examined according to the gender variable.

Considering the results of the analysis, it can be stated that the level of the empathic tendency of the participants is at a good level. In the study by Rehber and Atici (2009), it was stated that the level of empathic tendency of the participants was above average. In the study of Yağan et al (2018) carried out with university students, it was determined that the participants had the ability to build empathy above the middle level. Gülle (2015) found that the level of empathy of the participants receiving education in higher education institutions that provide sports education is above average. There are similar studies that are in line with the results of the research specified in the literature. Boylu, (2020), Özbaltı (2008), Topçu (2019), Genç and Kalafat (2010), Yılmaz and Akyel (2008), Keçicioğlu (2020) also found that the empathic tendency level of the participants in their studies was above average. Therefore, it can be stated that the relevant literature supports the research results. In the light of the findings obtained, it can be said that the participants love social environments and are comfortable there, they are skilled in understanding the thoughts of the people in front of them, they can easily communicate with different people, and they can be understanding in case of any problem.

When the empathic tendencies of the participants were compared according to the gender variable, it was found that the empathic tendency level of the female participants was statistically significantly higher than that of male participants. When the related literature is examined, it is seen that there are studies supporting the research results (Myry and Helkalma, 2001; Schireman and Gundy, 2000; Boylu, 2020; Eisenberg, Zho and Koller, 2001). However, there are also different studies in the literature where research results are not supported (Erkmen, 2007; Akpınar, Çolakoğlu, Akpınar and Kahraman, 2018; Manger, Eikeland and Sbjornsen, 2001; Yağan, Akpınar, Akpınar and Küçükateken, 2018). Therefore, considering the empathic tendency feature focus, it can be stated that although the sample groups are different in the mentioned studies, the gender variable does not give consistent results and it is difficult to make a generalization in this regard.

In line with the findings obtained from The Mindfulness Scale, it can be stated that the level of mindfulness of the participants is above average. In the study by Amanvermez İncirkuş (2018) that was carried out with teacher candidates, it was stated that the level of the participants' mindfulness was above average. In the study of Özmutlu (2019) on university students, a similar result was reached. Ağlamış (2019) also stated that the level of mindfulness of the participants was above average. Therefore, it can be said that similar studies overlapping the research findings are available and the research results are supported by the literature (Kızılaslan Tunçer, Kıncal and Şahin, 2015; Saracaoğlu and Çengel, 2013). In addition, it is possible to state that the participants are aware of the emotions they experience, have no problem focusing on the time period they are in, the work they are dealing with is for a specific purpose and they can control their daily work after focusing on any goal.

In the study, it was found that the level of mindfulness of the participants did not differ according to the gender variable. Sarwar, Yousuf, Hussain and Noreen (2009) determined that mindfulness does not differ by gender. Dilci and Kaya (2012) stated that there was no significant difference between participants' gender and mindfulness levels in their study carried out with teachers. Özsoy, Çakıroğlu, Kuruyer and Özsoy (2010)

concluded that the mean score of cognitive awareness of the participants did not differ significantly by gender. Moore (2009), Kurtipek, Güngör and Yenel (2018); Rahaman (2015) stated that there is no difference between mindfulness and gender. In addition, Sawhney and Bansal (2015) concluded in their study with university students that mindfulness does not differ statistically by gender. From this point, it can be stated that the related literature supports the research results. It is thought that the characteristics of individuals such as subjective control, awareness, and the ability to focus on internal and external stimuli are caused by experience and cultural reasons, regardless of the phenomenon of gender.

Another result obtained in the light of the research findings is that mindfulness does not affect cognitive empathy and emotional responses but affects social skills. Therefore, according to the research results, while the hypotheses 1 and 2 were rejected, the hypothesis 3 was accepted. When the Squared Multiple Correlations (R<sup>2</sup>) value of the model is examined, it can be stated that mindfulness explains cognitive empathy by %.018, emotional response by %.008 and social skills %.024. When the literature is examined, there are studies investigating the relationship between mindfulness and empathic tendency with different variables (Burke and Hawkins, 2012; Schireman and Gundy, 2000; Greenberg and Harris, 2012; Eisenberg, Zho and Koller, 2001; Zeidan, Johnson, Diamond, David and Goolkasian, 2010; Manger, Eikeland and Sbjornsen, 2001; Singh, Lancioni, Winton, Karazsia and Singh, (2013) while no other research has been found in which the power of mindfulness to predict the empathic tendency was tested. Considering that mindfulness does not affect cognitive empathy and emotional response; It can be said that the features of understanding different people's feelings, noticing people who hide their true feelings, listening to others' problems, and predicting which topics people will talk about are not related to their mindfulness levels. Considering the result that mindfulness affects social skill, it can be stated that the participants being aware of the emotions they experience, experiencing the moment, realizing the tensions in their environment, absorbing for what purpose they perform the task they carry out to make it easier for them to communicate with different people, to share physically and socially, and to understand people's feelings and thoughts. In addition, it can be stated that the mindfulness feature is an important factor on the way to individuals' qualified decision-making process. Therefore, considering that teachers are both a role model and an intermediary in shaping the next generations, it is recommended to establish models with different variables and to use qualitative research methods.

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## Environmental Issues and Critical Perspectives Mentioned at Public Service Announcements which are Prepared by Primary School Pre-Service Teachers\*

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### ABSTRACT

The aim of this study is to determine how primary school pre-service teachers approach environmental issues via public service announcements and their opinions on them. This study was conducted with case survey model. The study group consisted of 34 primary school pre-service teachers. Data were gathered via public service announcements which are prepared by primary school pre-service teachers and structured interview form. For the analysis of the data, descriptive and content analysis was used. It is determined that pre-service teachers addressed mostly environmental issues about wastes. Primary school pre-service teachers' opinion is it is more effective to raise awareness if individuals see their behaviors' negative effects and its results on environment on public service announcements. Content which is not definitive does not make sense to primary school pre-service teachers. They appreciate more if the content is more emotional and unique. For this reason, in environmental education, it can be recommended that environmental issues should be reviewed with their different aspects during environmental education. Also it can be recommended that there should be different perspectives about this matter and environmental issues should be associated with real life at environmental education.

#### Keywords:

environmental education, environmental issues, public service announcements, primary school pre-service teachers.

### 1. Introduction

In our day, the rapid increase of population, non-sustainable consumption habits, toxic wastes released on environment due to industrialization, any human activity in correlation with developing technology causing environmental issues. These issues can see both nationwide and worldwide thus their effects lead to increase interest in environmental issues. In order to prevent or manage environmental issues, environmental education is important. Environmental education was firstly appeared on education as a specific area at 70s, which is an era of increased environmental issues and efforts for solving them can be seen at this era. People realized that they are reason for environmental issues but they can be the solution for this situation. Thus environmental education became more important. In order to achieve that goal of the environmental education is determined as creating behavioral, cognitive and affective changes in students (Ozdemir, 2007). Hill (2006) described the environmental education as a tool for aiding individuals in order to develop their skills, tendencies and ecological comprehension. With these skills and knowledge, it is aimed to protect and boost the environment (Desjean-Perrotta, Moseley and Cantu, 2008). Environmental education has attainments which is about training individuals who has information about biophysical environment and issues about it, and also who are willing to create solutions about these issues (Stapp, Bennett, Bryan, Fulton,

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MacGregor, Nowak, Swan, Wall and Havlick, 1969). At Belgrade Charter, these aspects of environment were also mentioned. At this charter, goals of the environmental education determined as; train individuals globally who have an awareness of environment and environmental issues, who have an interest to those issues, and also willing and commitment to participate in the efforts of making solutions for environmental issues (United Nations Educational, Scientific and Cultural Organization- United Nations Environment Programme, 1976). At Tbilisi Declaration it is mentioned that it is necessary to be an active participant in the efforts for solving environmental issues (Tbilisi Declaration, 1978). Vaughan, Gack, Solorazano and Ray (2003), evaluated the environmental education as a constant learning process. Also added that individuals should have an awareness for their surroundings and they should increase their knowledge, skills, values and experiences on solving environmental issues for current and future generations. Magnus, Martinez and Pedauye (1997), reviewed environmental education on the aspects of; evaluation of environmental issues, determination of issues, and creation of solutions which are applicable. And also mentioned that the ultimate goal of environmental education is to create individuals who have an environment friendly behavior. Zsóka, Szerényi, Széchy and Kocsis (2013) mentioned that it is hard to train students in order to become self-motivated, conscious and determined individuals, and this is the major challenge of environmental education. They also emphasized that the sustainable future is possible via achieving ultimate goal of environmental education. When the goals of environmental education are reviewed, developing and awareness of environment and its issues is primarily expected from individuals. After that creating a solution and acting upon on these solutions were expected.

On environmental education, educators who have an awareness about sustainability, understanding of the interdisciplinary and globalized nature of environmental issues, and also who uses different methods of education have an important impact (Pérez-Rodríguez, Varela-Losada, Álvarez-Lires and Vega-Marcote, 2017). At his point, teachers who will raise the future generations have an important role on environmental education. Thus pre-service teachers should get a comprehensive education about environmental education. Within this context pre-service teachers are expected to be aware of environmental issues and their causes, their effects and their solutions. And they are also expected to have an appropriate environmental behavior. As future teachers, it can be said that having these skills is important for pre-service teachers on the subject of environmental education.

Research made with in consideration of pre-service teachers position on environmental education according to different samples, parameters and disciplines. On these researches, pre-service teachers' knowledge, attitude, behavior and awareness about environment (Yumusak, Sargin, Baltaci and Kelani, 2016), their knowledge, attitude and behavior about environment (Esa, 2010), their knowledge and attitude about environment (Alim, 2013; Taylor, Doff, Jenkins and Kennelly, 2007; Vlaardingerbroek and Taylor, 2007), their attitude about environment (Bozdemir and Faiz, 2018; Guven, 2013; Kahyaoglu, Daban and Yangin, 2008; Koc and Kuvac, 2016; Ozsoy, Ozsoy and Kuruyer, 2011), their awareness and knowledge about environment (Tal, 2010), their comprehension of environmental issues (Arik and Yilmaz, 2017; Cimen and Yilmaz, 2014; Fettahlioglu, 2018; Khalid, 2003; Ozata Yucel and Ozkan, 2016; Ozata Yucel and Ozkan, 2018; Oztas and Kalipci, 2009) are reviewed. Also there are studies on environmental literacy in literature (e.g. Dada, Eames, and Calder, 2017; Goldman, Yavetz, and Pe'er, 2014; Ogunyemi and Ifegbesan, 2011; Surmeli, 2013; Tuncer, Tekkaya, Sungur, Cakiroglu, Ertepinar and Kaplowitz, 2009; Yavetz, Goldman and Pe'er, 2009). When this studies are reviewed, it can be said that pre-service teachers have a positive attitude towards environment, they have a tendency to behave sensible about environment (Alim, 2013; Ozsoy, Ozsoy and Kuruyer, 2011; Taylor, Doff, Jenkins and Kennelly, 2007; Vlaardingerbroek and Taylor, 2007; Yumusak, Sargin, Baltaci and Kelani, 2016) but have a hard time about acting on it and also they have a lack of knowledge about some concepts (Esa, 2010; Urey, Colak, Bozdemir Yuzbasioglu and Kaymakci, 2020; Yumusak, Sargin, Baltaci and Kelani, 2016). In studies which reviewers the pre-service teachers' comprehension about environmental issues showed that their knowledge about pollution is not advanced (Arik and Yilmaz, 2017), they see environmental issues as pollution (Ozata Yucel and Ozkan, 2016, 2018), and with the increased level of environment literacy, pre-service teachers' comprehension about environmental issues (Fettahlioglu, 2018).

As it can be seen in studies, pre-service teacher's comprehension about environmental issues have a lack of knowledge, awareness, comprehension about environment and environmental issues. These deficiencies will

affect the teaching-learning processes of environmental education. When importance of primary school on developing knowledge, skill and behavior, primary school pre-service teachers' deficiencies about these subjects will reduce the effectiveness of environmental education. When the regarding grade levels are considered, primary school teachers have more responsibility. Because effects of environmental education solely based on the age it starts (Grodzińska-Jurczak, Stepska, Nieszporek and Bryda, 2006). It is recommended that children should start learning about earth at early ages (Palmer, 1995; Wilson, 1996). Interaction with environment boosts the learning, for this reason educators are expected to create more comprehensive setups for students (Wilson, 1996). Quality of environmental education is determined by teachers' awareness of environment protection, environmental issues and environmental education (Than, 2001), their environmental interactions, environmental values, and their skill of environmental education (Lang, 1999). These qualities will reflect primary school pre-service teachers' future career. If this reflection turns out to be a positive one, this will result in students who are sensible about environment.

Besides developing awareness, responsible environmental attitude and behavior, environmental education also has a purpose of enabling new skill sets. These skills were mentioned at Tbilisi Declaration and they were: critical thinking, problem solving and decision making skills (Tbilisi Declaration, 1978). Rider (2005) described the environmental education content as critical thinking, systems thinking, regionalism, participatory education, informal influences. Stevenson (2007), said that environmental education also includes critical thinking about environmental situations. Thus it can be seen that during an comprehensive environmental education, it is aimed that an array of skills should be developed. Among these skill sets, critical thinking is more prominent.

Primary school pre-service teachers are expected to be able to teach awareness of environmental issues, environmental consciousness, positive environmental attitude and behavior along with to be able to make students gain new skill sets –especially critical thinking-. For developing those qualifications at pre-service teachers, environmental education course at primary school teaching bachelor programme, have a substantial role. In order to achieve this, at freshmen year, pre-service teachers should be tasked with duties which allows them to use their skills and courses should be structured around these criteria can be a positive contribution to environmental education. Also with these tasks, revealing pre-service teachers' opinion's about environmental issues is important. For this reason, public service announcements are seen important because of having an informative and deductive aspect (Radio and Television Supreme Council, 2012), having a convincing effect on target audience (Dogu Oztürk, 2020), having a script, structure, being able to raise awareness and also because they can provide a platform which allows to conduct the information via visual and vocal channels.

In this day and age, teachers are expected to use interactive approaches. In order to develop this skill they should experience practices at department of education. During the process of creating a public service announcement, pre-service teachers, will have a chance to share their perspective of environmental issues along with they will be a part of an interactive activity. Also creating public service announcement videos, can create new and exciting opportunities (Hoban, Loughran and Nielsen, 2011). For this reason, at this study, pre-service teachers were asked to create public service announcements, thus environmental issues which they want to raise awareness of and how they handle them can be determined. At the end of the process, with public service announcements' reviews were being done by pre-service teachers, opportunity of sharing their opinions about environmental issues via example practices was created. Thus this will enable primary school teacher pre-service teachers to practice their critical thinking skills. Thus, it is thought that the primary school pre-service teachers will reveal their critical perspectives. Identifying these points of view may guide the creation of instructional designs which draw attention to environmental issues and raise awareness within the scope of environmental education in higher education. It was aimed to determine which environmental issues were mentioned, how they were managed, and also to reveal pre-service teachers' opinions of public service announcements. For this purpose, in this study answers to the following questions were sought.

1) What are the environmental issues in the public service announcements prepared by primary school pre-service teachers?

2) What constitutes the content of public service announcements prepared by primary school pre-service teachers?

3) What are the opinions of the primary school pre-service teachers regarding the public service announcements prepared by their friends?

## **2. Method**

### **2.1. Research Design**

In this study, it was aimed to determine the situation of primary school pre-service teachers to address environmental issues in the task of preparing public service announcements and to examine the reflections of their critical perspectives by providing an opportunity to express their views on these public service announcements. For this purpose, in accordance with the nature of the problem, the research was carried out by survey method based on determination of situation from qualitative perspective. This study was carried out by using case survey model, which is one of the descriptive research methods, as it was tried to reveal the current situation, as it was expressed about its effectiveness in obtaining detailed and life like information (Karasar, 2002).

### **2.2. Study Group**

The study group consisted of 34 first grade primary school pre-service teachers in 2019-2020 academic year at a university located in the Western Black Sea Region in Turkey. In the study, the participants were selected by criterion sampling method. Criterion sampling is the sampling method in which participants are selected based on predefined criteria (Patton, 1997). When Primary School Teaching Curriculum is examined, it is seen that the environmental education course which is about environment and environmental issues is in the first grade. This study focused on the concepts of environment and environmental issues. Since the current status of primary school pre-service teachers wanted to be determined before entering the learning environment, the study group was formed by first grade students.

### **2.3. Data Gathering Tool**

In the research, the data were collected through the public service announcements prepared by primary school pre-service teachers and their answers to the interview form for these public service announcements. Within the context of the study, the guidelines for preparing public service announcements and interview questions have been investigated in the relevant literature and the validity has been approved by three experts in terms suitability for the purpose, representation of the feature to be measured and grammar.

### **2.4. Process**

In the research, the students were asked, "You want to raise awareness about an environmental issue and prepare a public service announcement for it. Which environmental issue do you address? How do you address this environmental issue in the public service announcement?" In the study, primary school pre-service teachers were asked to form groups with their friends who they would like to work with in preparing public service announcements. After that students:

- Identified an environmental issue and made research on it.
- Reviewed the previously made public service announcements.
- They prepared the script, structure and slogans of public service announcements.
- They shot the public service announcements.

After the preparation of public service announcements, each announcement was watched by pre-service teachers. They answered the questions in the interview form about public service announcements. Interview form included the following questions:

- Is the public service announcement you watched attention gathering? Please explain.
- Did the public service announcement you watched create awareness of the environmental issue it addresses? Please explain.
- What are your thoughts on the message of the public service announcement that you watched?
- Which public service has affected you? Please explain why?

## 2.5. Data Analysis

Descriptive and content analysis methods were used in the analysis of the data gathered in the research.

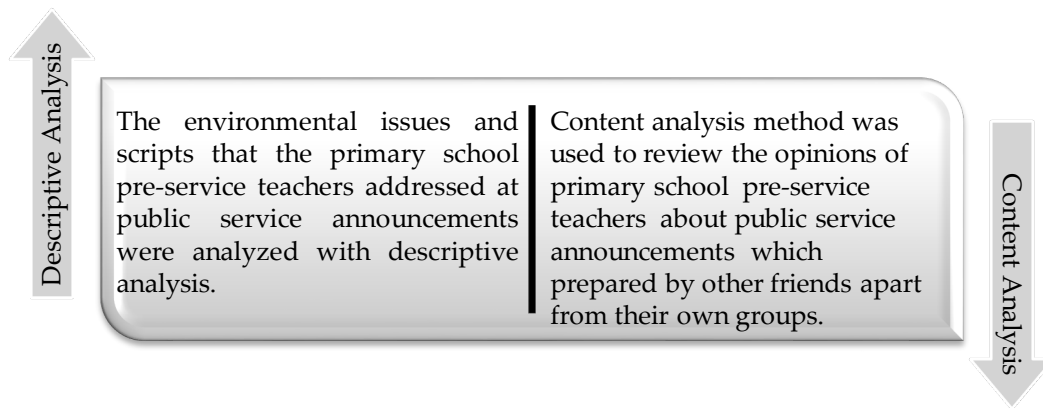


Figure 1. Analysis of Data

In the descriptive analysis, frequency values related to environmental issues which were addressed at the public service announcements that prepared by primary school pre-service teachers. Scripts in public service announcements were also covered within the context of these environmental issues. In the content analysis, the opinions of the primary school pre-service teachers towards the public service announcement that they watched were evaluated and themes were created. Necessary analyzes were done by the researcher during the data analysis process. Later, the findings were examined by an independent researcher. Consensus and disagreements were identified. In cases where there is an opinion difference, discussions were made. Necessary adjustments have been made and compatibility between researchers was calculated with the reliability formula created by Miles and Huberman (1994). Compatibility between researchers was calculated as 82%.

## 3. Findings

Findings related to the environmental issues that the primary school pre-service teachers wanted to create awareness, their approach on these issues and their opinions on public service announcements are included in this section. The first problem of the study is about the environmental problems in the public service announcements prepared by the primary school pre-service teachers for environmental issues. The environmental issues that primary school pre-service teachers want to create awareness in public service announcements are presented in Table 1.

**Table 1.** Environmental issues in public service announcements prepared by primary school pre-service teachers

Public service announcement	Environmental issue
1	Waste/Soil pollution
2	Waste/Soil pollution, Deforestation
3	Noise pollution
4	Waste/Soil pollution, Waste/Water pollution
5	Wastes
6	Wastes, Air pollution
7	Endangered animals
8	Waste/Water Pollution
9	Wastes

When the Table 1 is examined, it was determined that, first public service announcement is about waste/soil pollution, second public service announcement is about waste/soil pollution and deforestation, third public service announcement is about noise pollution, fourth public service announcement is about waste/soil pollution, waste/water pollution, fifth public service announcement is about wastes, sixth fifth public service announcement is about wastes, air pollution, seventh public service announcement is about endangered

animals, eighth public service announcement is about waste/water pollution, ninth public service announcement is about wastes.

The second problem of the research is about the contents of the public service announcements created by the primary school pre-service teachers. Accordingly, the scripts created by primary school pre-service teachers include the contents of the public service announcements regarding environmental issues, were given at Table 2.

**Table 2.** Scripts of public service announcements prepared by primary school pre-service teachers

Public service announcement	Script
1	In a park in the city center with green areas, there is an image of people who continue to litter especially in a pile of packaging waste. After that, in a natural environment image, "Environment is not a heritage, it is a temporary asset that will be transferred to future generations", "He/she who ill-treats environment, will not have a bright future" sentences were voiced.
2	A person who takes notes on a paper in a green area with trees throws the papers to the ground instead of throwing them in the trashcan. People passing through that area have warned the person who uses the paper unnecessarily and throws it in the ground. They stated that due to his/her behavior the trees will need be to cut. Then he/she threw the papers in the trashcan. Then "If we recycle and not waste material in vain, the trees that provide nature and balance will not be cut and you will live longer." sentences were voiced.
3	It was shot in an area with heavy traffic in the city center, with lots of horn sounds. Two people were having a hard time hearing each other from this noise. Then the scene has changed and two different people complained about noise pollution (from its psychological effects). Later, a transition was made to a natural scene with bird chirps. "Every day, if we lived with the sounds of birds and the sounds of nature, instead of horns and traffic sounds, we would be more healthy as individuals and a more harmonious society." sentences were voiced.
4	It started with the images of a soil and a water stream passing through the city center where there is waste. "Every drop that has been contaminated means the tears of children. If the soil gets contaminated the first living beings to cease existence are humans. Environment is not an inheritance it is a temporary asset which will be transferred to future generations. Efforts should be made together for clean environment." sentences were voiced. A person passing by the trash cans threw the trash on the floor instead of throwing it in the trash cans. A confused person took this garbage and put it in the trashcan. A region was shot in the city center. "No to concrete, yes to green" sentence was voiced.
5	Students waiting for the class left their glasses and bottles of beverages on the table in the school garden. Then one person put them in the recycling can by separating them as paper and plastic.
6	University students who smoke in the school canteen caused air pollution. At the same time, they threw the glasses of tea to the ground, instead of trashcan. "Clean people, clean environment" sentence was voiced. Recycling and what can be produced with recycling was shown.
7	The image started in 2137. A child, looking at past photos on her mother's phone, was surprised to see some photos. She saw various animals on her mother's lap in the photos. She resembles them to her toys. When she wanted to see these animals alive her mother, took her to the zoo. Here, only the models of these animals have remained. "As our waste spreads around the world, our animals die one by one. But we continue to increase our waste and consume plastic. So will these wastes can replace animals? Will the models of our animals we put instead of the real ones satisfy you? In order to have dignity in the perspective of our children and animals, let us try to reduce the plastic waste we create and throw the waste into the trashcan. Everything is for future, everything is for earth." sentences were voiced.
8	A dirty water flowing from the tap was seen. A pool is considered as the sea with wastes were cleaned and the water flowing from the tap has become clean. "Water is life." sentence was voiced.
9	The students left the bottle of and seeds on the table where they sat in the school yard. These images were being focused. "As long as we preserve the nature, nature preserves us. Tomorrow's nature is created from today. Environment is not an inheritance it is a temporary asset which will be transferred to future generations. Please let's take care of our environment and keep it clean." sentences were shown in the video as script.

The third problem of the study is about the opinions of the primary school pre-service teachers regarding the public service announcements prepared by their friends. The opinions of the primary school pre-service

teachers were reviewed under the topics of attracting attention, creating awareness, message that was addressed and the most influential public service announcement. The opinions of the primary school pre-service teachers about whether the public service announcements they watched are gathering attention are shown in Table 3.

**Table 3.** Public service announcements' attention gathering levels

Public service announcement number	Yes								No					
	Includes real life events	Behaviors damaging environment	Can see the effect of behavior	Slogan/Message	Originality	Includes details	Emotional aspects	Does not include reason	Not original	Does not include details	Public service announcement elements	Does not include real life events	Does not include solutions	Does not include reason
	f	f	f	f	f	f	f	f	f	f	f	f	f	f
1	3	1	3	6	-	-	-	1	7	4	-	2	1	2
2	2	4	10	6	1	4	-	3	-	1	-	-	-	-
3	10	7	-	-	6	1	1	3	1	-	-	1	-	-
4	3	2	1	-	-	9	-	-	2	12	-	-	-	1
5	4	14	-	1	2	-	-	4	3	1	-	-	-	1
6	17	3	1	1	2	1	1	2	2	1	-	-	-	-
7	-	6	16	1	5	-	1	1	-	-	-	-	-	-
8	4	4	9	2	-	-	1	2	-	4	1	-	1	1
9	3	3	2	-	-	-	-	1	12	2	3	-	-	4
<b>Total</b>	<b>46</b>	<b>44</b>	<b>42</b>	<b>17</b>	<b>16</b>	<b>15</b>	<b>4</b>	<b>17</b>	<b>27</b>	<b>25</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>9</b>

Explanations of primary school pre-service teachers on public spots which they find attention gathering were examined. In this explanation, reasons for public service announcement attention gathering by primary school pre-service teachers were; including real life events (f=46), including damaging behaviors toward environment (f=44), including the end result of a behavior (f=42), liked the slogan/message of the announcements (f=17), being original (f=16), including details (f=15) and including emotional aspects (f=4). There are also explanations which described the content as attention gathering but these explanations were made without any reason (f = 17). There are also public service announcements that primary school pre-service teachers do not qualify as attention gathering. When these explanations were reviewed, it can be seen that the reasons for not finding as attention gathering were; not being original (f=27), not including details (f=25), having a lack of public service announcement elements (f=4), not including real life events (f=3), not including solutions (f=2). It is also present in this section that primary school pre-service teachers do not give reason for their opinions stating that they do not find public service announcement as attention gathering.

The opinions of the primary school pre-service teachers regarding the awareness creating status of the public service announcements they watched are shown at Table 4.

Explanations of primary school pre-service teachers about public service announcements which they think create awareness were examined. Based on these explanations, reasons for teacher primary school pre-service teachers to find public service announcements as successful at creating awareness were; including behaviors that have a negative effect on environment (f=118), being able to see the result of behavior (f=28), being informative (f=15), including real life events (f=15), including environmental effects (f=9), heeding (f=9), being original (f=6), future of environment (f=3). There are also explanations which described the content as attention gathering but these explanations were made without any reason (f = 4). There are also public service announcements that primary school pre-service teachers do not qualify as successful at creating awareness. When these explanations were reviewed, it can be seen that the reasons for not finding as awareness creating were; not being able to include details (f=47), not being original (f=4), not being able to see the results of the behavior (f=2). It is also present in this section that primary school pre-service teachers do not give reason for their opinions stating that they do not find public service announcement as successful at creating awareness (f=11). The opinions of the primary school pre-service teachers regarding the messages that addressed in the public service announcements are shown in Table 5.

**Table 4.** Awareness creating status of public service announcements prepared by primary school pre-service teachers

Public service announcement number	Yes										No			
	Behaviors which have a negative effect on environment	Can see the effect of behavior	Gives information	Includes real life events	Impact	Heeding	Originality	Future of environment	Does not includes reason	Does not includes details	Is not original	Can not see the effect of behavior	Does not includes reason	
	f	f	f	f	f	f	f	f	f	f	f	f	f	
1	7	1	-	1	3	1	-	3	-	9	2	1	2	
2	20	1	4	1	3	-	-	-	1	1	0	0	0	
3	6	5	-	4	-	6	-	-	1	6	1	1	0	
4	9	3	2	3	1	-	1	-	-	9	1	0	1	
5	20	-	1	4	-	-	-	-	2	2	0	0	1	
6	20	-	6	1	-	-	-	-	-	2	0	0	2	
7	11	14	1	-	-	-	4	-	-	0	0	0	0	
8	17	3	-	-	1	2	-	-	-	3	0	0	3	
9	8	1	1	1	1	-	1	-	-	15	0	0	2	
<b>Total</b>	118	28	15	15	9	9	6	3	4	47	4	2	11	

**Table 5.** Opinions of the primary school pre-service teachers regarding the messages that addressed in the public service announcements

Public service announcement number	Protection of environment	Future of environment	Recycling	Increasing the impact of message	Multiple environmental issues	Seeing the result of behavior	Reducing/preventing	Making it noticeable	Emotional aspects	Warning	Irrelevant answer
	f	f	f	f	f	f	f	f	f	f	f
1	11	17	-	-	-	-	-	-	-	-	2
2	24	4	-	-	-	-	-	-	-	3	-
3	-	-	-	-	-	-	11	9	7	-	3
4	11	-	-	-	19	-	-	-	-	-	-
5	10	-	17	3	-	-	-	-	-	-	-
6	14	-	11	4	-	-	-	-	-	-	2
7	1	11	-	1	-	17	-	-	-	-	-
8	24	-	-	5	-	-	-	-	-	-	-
9	20	2	-	8	-	-	-	-	-	-	-
<b>Total</b>	115	34	28	21	19	17	11	9	7	3	7

Primary school pre-service teachers' explanations regarding the messages addressed at public service announcements were examined. Primary school pre-service teachers stated that the first public service announcement included messages about the future of the environment and environmental protection. They stated that the second service announcement included messages about the future of the environment and the warning of people who have harmful behaviors towards the environment. They stated that the third service announcement included messages about the reduction / prevention, awareness and emotional aspects. They stated that the fourth service announcement included messages about the protection of environment and multiple environmental issues. They stated that the fifth, sixth and ninth service announcements included messages about the recycling. They stated that the seventh service announcement included messages about the future of the environment and seeing the result of the behavior. They stated that the eighth service



announcement included messages about the protection of the environment. Some pre-service teachers expressed the impact of the messages of fifth, sixth, seventh, eighth and ninth announcement should be increased. Also they gave irrelevant answers about first, third and sixth public service announcements' messages. Public service announcements which affected the primary school pre-service teachers and pre-service teachers' opinions about them are shown at Table 6.

**Table 6.** Public service announcements which affected the primary school pre-service teachers and pre-service teachers' opinions about them

Public service announcement number	Emotional aspect	Instructive aspect	Original content	Other living beings	Relevance to real life	Structure	Total
	f	f	f	f	f	f	f
1	-	-	-	-	-	-	-
2	1	-	-	-	-	-	1
3	-	1	-	-	-	-	1
4	-	1	-	-	-	-	1
5	-	-	-	-	-	-	-
6	-	2	-	-	3	-	5
7	6	2	6	5	1	3	23
8	2	-	-	-	-	1	3
9	-	-	-	-	-	-	-
<b>Total</b>	9	6	6	5	4	4	34

When we reviewed the public service announcements created by primary school pre-service teachers, it can be said that first, fifth and ninth public service announcements did not get liked by any of the participants. When the numbers of likes that announcements get reviewed, it is seen that highest number of likes belong to seventh announcement (f=23), then sixth (f=5), eighth (f=3), meanwhile the least number of likes belong to second (f=1), third (f=1) and fourth (f=1) announcements. Highest contributor to getting likes is determined as having emotional aspects (f=9). Other contributors were having instructive aspects (f=6), having original content (f=6), including other living beings (f=5), being relative to real life (f=4), and structure (f=4).

#### 4. Discussion, Conclusion and Recommendations

When the environmental issues that the primary school pre-service teachers addressed and wanted to create awareness public service announcements were examined, it can be seen that wastes were the general focus point. They also wanted to draw attention to the soil and water pollution caused by these wastes. There were also public service announcement about noise pollution, irregular urbanization and endangered animals. In the study by Ozata Yucel and Ozkan (2016), primary school pre-service teachers also stated that the air pollution, soil pollution, water or sea pollution, noise pollution, irregular urbanization as environmental issues. In addition, global warming was one of the issues stated by pre-service teachers. Dogan and Simsar (2019) also achieved similar results in their studies, and in study, preschool pre-service teachers expressed global warming as the biggest global environmental issue and then stated air, water and soil pollution followed suit. In addition, preschool pre-service teachers stated that chemical wastes' release to nature and various animal species disappearance as another global environmental issue. Yilmaz and Gultekin (2012), in their study, determined that primary school pre-service teachers mentioned that water pollution, global warming and air pollution in the first three places within the topic of possible environmental issues in the future. When the issues discussed in the current study were analyzed, it can be seen that primary school pre-service teachers generally get their ideas from the environmental issues that they can observe in their close environment. But, in the literature, it has been observed that they have not made any attempts at public service announcements regarding the concept of global warming which is a very popular topic in written, visual and social media in recent years, and it has not been observed they did not prepared any activities to remind this issue (Dispensa and Brulle, 2003). Di Francesco and Young (2011), stated the deficiencies of these visuals in their research, in which they examined the visuals in the news about global warming in the media. They stated that even though polar bears, deserted soils, melting glaciers, were used as visuals were used,

they were not effective on individuals. Because people cannot visualize the potential effects and results of the global warming. Besides, they cannot associate the abstract language used with daily life. In this regard, it can be said that primary school pre-service teachers did not address the topic of global warming in the public service announcements they prepared because of the fact that they could not associate with their own lives even though it being a very popular topic in the media. In the study conducted by Fettahlioglu (2018) with pre-service teachers, it can be seen that although pre-service teachers are more likely to show interest in the environmental issues which they can associate with their lives or close surroundings and they are not likely to show interest environmental issues which are global issues but do not have an immediate impact on their close surroundings. In the literature, in the studies conducted on different levels of work groups there are also statements about participants show more interest in the environmental issues which they can observe in their close surroundings (e.g., Alerby, 2000; Artun and Okur, 2015; Yardimci and Bagci Kilic, 2010). In the public service announcement which is about endangered animals, although this issue was not observed directly, usage of cows, cats, etc. in the video can be associated to the close surroundings of the pre-service teachers. Because in the video animals which we encounter in daily life was used as endangered species.

When the contents of the public service announcements prepared by primary school pre-service teachers were examined, it was stated in the first video regarding the soil pollution caused by the wastes that the environment is an asset that will be left to future generations. In the fourth video, which was about water pollution due to wastes, it was stated that every drop that has been contaminated means the tears of children. The emphasis about future was also made in the seventh public service announcement which is about extinct creatures. In these contents, environmental issues were approached by drawing attention to future generations. The concept of sustainable development (World Commission on Environment and Development, 1987) defined as “meeting the needs of future generations as well as needs of today” also appears. It can be said that primary school pre-service teachers have awareness about this concept, even though they did not make any statements regarding sustainable development. It is thought that this awareness will be reflected on both their own lives and future learning environments. In this context, this feature in regards to environmental education can contribute to environmental sustainability. Because environmental education is seen as an important way of ensuring environmental sustainability (Taylor, Doff, Jenkins, and Kennelly, 2007). Another awareness which can contribute to the quality of environmental education is about noise pollution. In the content of the third public service announcement which is about noise pollution, emphasis has been made that this environmental issue has psychological effects. Similar to the results in this study, Oztas and Kalipci (2009) stated that pre-service teachers have knowledge about that sound pollution may cause psychological, physiological and social problems.

In the second public service announcement which is about soil pollution caused by wastes, it was stated that if these wastes - especially papers - were not thrown into the environment, trees will not be cut, the natural balance will not deteriorate and thus people will live longer. In the fourth service announcement which is about soil pollution, it was stated that if the soil gets polluted, people will be the first ones to be effected. It has been stated in the public service announcement which is about noise pollution, that individuals will be healthier if the noise pollution is prevented. When the contents were examined, it can be seen that positive effects of protecting the environment on human life was emphasized. According to this human-centered perspective, the environment is evaluated in according to the opportunities it provides to people (Thompson and Barton, 1994) and human interests are supported (MacKinnon and Fiala, 2014). In this case, an understanding of the environment, which takes the human as the focus point, was observed in the primary school pre-service teachers. In the eighth video which is about water pollution, it was stated that water is important for all living beings. In here, an environment centered understanding can be seen. It can be said that pre-service teachers have environmental centered perspectives along with more prominent human centered understanding. In literature there are studies that expresses pre-service teachers have both environments centered and human centered understandings (Bozdemir and Faiz, 2018; Desjean-Perrotta, Moseley and Cantu 2008; Erten and Aydogdu, 2011).

It can be seen that pre-service teachers addressed that the wastes should not be thrown in to environment, they should put in the recycling bins. Also information about positive effects of recycling was given. Thus it can be said that, pre-service teachers have an awareness and knowledge about recycling. In literature, it can

be seen that in the studies which regard to environment and environmental issues, pre-service teachers emphasized the recycling concept (e.g., Aslan Efe and Baran, 2017; Hirca and Simsek, 2013; Ozmen and Ozdemir, 2016; Sever, 2013). Recycling is not only seen as separation of wastes, also its contributions to society, country and the environment were also addressed by primary school pre-service teachers. This shows that positive steps had been taken by pre-service teachers in order to gain appropriate behavior about conservative energy usage and pollution prevention.

In this study, primary school pre-service teachers stated that the public service announcements which they qualified as attention gathering, contained real life experiences, harmful behaviors towards environment, results of the behavior, emotional aspects, likable slogan / message, originality, detailed information. When the most expressed reasons were examined, primary school pre-service teachers find public service announcements as attention gathering if they are able to see the effects, results and real life associations of the environmental issue. This result can also be explained by the statement that the potential effects of an environmental issue does not affect individuals if their results are not seen and there is no association with daily life in Di Francesco and Young's research (2011). The primary school pre-service teachers stated the reasons of not qualifying public service announcements as attention gathering are; not being original, being superficial, lack of sound in the video, not being associated with real life events and not offering a solution to the issue. Thus it can be seen that, primary school pre-service teachers want originality and a different perspective in addressing environmental issues. They stated that it does not gather attention when the environmental issue is addressed in an ordinary way. For this reason, when it is desired to draw attention to environmental issues in departments of education, it can be said that more creative instructional design will net more effective results. In literature, the usage of out-of-school learning in environmental education and activities (Kiyici, Yigit, and Darcin, 2014; Ozdemir, 2010), usage of current events (Gokce, 2009), having learning environments supported by various activities have positive effects on the environment (Cabuk, and Cabuk, 2017; Guzelyurt and Ozkan, 2017; Keles, Uzun and Varnaci Uzun, 2010). The primary school pre-service teachers stated that if public service announcement addressed the environmental issues in a superficial way and if it does not offer a solution, it is qualified as non-attention gathering. In this case, it can be said that primary school pre-service teachers want to see the various aspects of the environmental issue. This result is similar to the statements of pre-service teachers which they expressed that they want to see the effects and results of environmental issues. Opinions that the public service announcement is not attention gathering because it does not include any association with real life, are correlates with the results of Di Francesco and Young's (2011) studies which expressed if there is no association with real life an environmental issue will not effect individuals.

There are statements by pre-service teachers that the absence of a sound element in the public service announcement will impact the attention gathering capability of announcement negatively. In this regard, presentation of information in environmental education in different ways can be seen. Including different ways of presentations of information in learning environments helps students understand the concepts more easily (Schontz, 2002; Schnotz and Bannert, 2003). At the same time, in an enriched learning environment which includes the presentation of information in different ways, each display makes it easier for the students to make their learning as a more complete experience (Kurnaz and Yuzbasioglu, 2013). Thus, it can be said that these display types can be used effectively in environmental education both in attracting attention and in understanding and constructing information.

In this research, whether or not the public service announcements about environmental issues create awareness among primary school pre-service teachers were examined. Pre-service teachers who qualified the announcements as successful at creating awareness, stated the reasons for this are; including harmful behaviors towards environment, being able to see the result of the behavior, being informative, including real life events, including environmental impacts, heeding, being original, including information about future of the environment. Thus pre-service teachers stated that if the public service announcement includes the effect of the behavior on the environment, results of the environmental issue, and real life events it can be qualified as successful at creating awareness as in attention gathering. It can be said that they want to see tangible situations in environmental issues. In addition, pre-service teachers stated that the presence of informative aspects in the public service announcements will create awareness. It can be said that the importance of acquiring information about environment and environmental issues in the environmental

education process can be seen at this point. Primary school pre-service teachers, who qualified the public service announcements as not successful at creating awareness stated the reasons for this as; not elaborating, not including details, not being original, and not being able to see the results of the behavior. Pre-service teachers stated that contents which are not addressed in different ways and not original, fails to create awareness. It can be said that original learning designs will be more effective in creating awareness about environmental issues in departments of education.

When the opinions of pre-service teachers on the messages of the public service announcements were examined, it was determined that they had a general idea about the announcements' messages. However, it was determined that there was confusion about the messages in the public service announcements which addresses multiple environmental issues. Primary school pre-service teachers also have criticisms about the way messages are given in public service announcements and their structure. These criticisms were mostly towards the ninth public service announcement. This public service announcement included only people who throw garbage in the environment and the wastes they leave behind. Causes, effects, results, preventive measures, etc. did not covered in this public service announcement. Thus, it seems difficult to fully understand the message. With this information it can be said that it is necessary to make associations while addressing the environmental issues, and every concept and message should be addressed with clarity. In this regard, there may be a meaningful environmental education process and the messages we want to give in our target audience can create a response.

When the primary school pre-service teachers' explanations about their favorite public service announcements were examined, it was seen that they liked the public service announcement which was about endangered animals most. They stated the reasons for liking it as having emotional aspects, being original, and including animals. In public service announcements, emotions are used to increase the effectiveness of the message and also in efforts to changing behavior. Using fears also contributes to increasing its effectiveness (Dogu Ozturk, 2020). In this case, it can be said that the public service announcement which is about the extinction of the animals that they can see in their daily life, increases its effectiveness through fears. Among the reasons for liking originality, also shows the positive effects different perspectives and unusual activities in the environmental education process. The inclusion of animals in the seventh public service announcement and it being the most liked announcement shows not human centered perspective. It can be said that non human centered perspectives can be present in announcement that gathers attention, creates awareness and conveys the message to the target audience correctly. With having these kind of content, pre-service teachers can be thought about non-human centered perspective about environment and also about environment as a concept which have its own value regardless of humans (MacKinnon and Fiala, 2014).

According to these results, it can be suggested to focus on all aspects such as sources, causes, effects, and results of environmental issues in creating a learning design for environmental issues in the environmental education process. In this design, it can be started with the environmental issues that the target audience regards as tangible and relate to their own lives. In addition, considering the original contents about environmental issues affecting pre-service teachers, environmental education courses can be conducted with interactive activities which have different perspectives, informal learning environments and which makes students active.

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## The Relationship between Emotional Labor in Sports Organization and the Level of Loneliness in Organizational Life\*

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### ABSTRACT

The aim of this study is to evaluate the relationship between emotional labor of sports business employees and loneliness levels in organizational life. For the purpose of the study, the universe of the research consists of sports service within the organization of Istanbul Metropolitan Municipality Sport İstanbul employees while the sample is created by volunteer participants who are identified through simple random sampling method (n = 330) In the study which is conducted by applying a relational screening model, the data were collected by using the survey method technique. Personal information form, emotional labor and loneliness scales in business life were applied to the participants. The data obtained were registered to the SPSS 25 package program. Correlation and regression analysis were applied as statistical process. As a result, it was determined that there is a moderate negative relationship between the emotional labor level of the employees of the sports organization and the level of loneliness in organizational life, emotional labor is the predictor of loneliness in organizational life and it explains approximately 21% of the total variance. As the level of meeting the business expectations of the employees in the service delivery increases in demand their experience of loneliness decreases in business life. Therefore, it is realized that emotional labor plays an important role in the level of loneliness in organizational life.

#### Keywords:

Emotional Labor, Loneliness in Business Life, Sports Organization

### 1. Introduction

The society in which people live, social structure and technological developments create awareness or sensitivity in people's life. This situation reflects to "the climate and culture of the organizations" (Turhan, 2019). It is realized that people are in interaction / communication with organizations in their lives due to the fact that human is an undeniable fact in the provision and use of a service. Therefore, it is pointed out an emotional bond between people and organizations. The emotional bond can be considered as emotional labor in employees. The concept of emotional labor was first introduced to the literature through the Hochschild' s studies. According to Hochschild (1983), emotional labor is the state of facial expression (gestures and signs) that can be observed by other people by managing the feelings of the individual for business. It is defined as "the effort to feel and convey the appropriate emotion in order to serve its stakeholders in the best way while implementing the rules determined by the organization where the employee works" by Eroğlu (2011). The communication problem that people experience may lead to sense of loneliness. So, human beings cannot achieve the intended communication and they isolate themselves from their environment. This situation can be observed in the working environment as well as in the social environment. The inability of individuals in the business world with their own unique working conditions to

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adapt to their environment, being inadequate to respond to what is expected of them can make them feel lonely and this situation may appear as loneliness in organizational life (Nartgün and Demirer, 2016). Wright (2005) defined the loneliness in business life as “environmental, organizational and individual factors. He stated that organizational loneliness in the literature has two sub-dimensions. It was stated that the first one, the emotional loneliness dimension, caused by the lack of an emotional attachment to any person in the organization, and the second one, the dimension of social loneliness, caused by the deprivation of shares in the business environment.

The individual, who has to show emotional labor in business life, may experience negative emotions such as, alienation, fatigue and social isolation during the stage of having his feelings in parallel with business environment. An individual who faces these negative situations in his business life, feeling alienated, pessimism and dejection may occur. For this reason, tendency to resign and lack of productivity and performance can be observed in individuals. Worker's getting into these feelings appear as loneliness in organizational life (Turhan, 2019). The research conducted by Bell, Roloff, Van Camp and Karol (1990) reveals that high-ranking individuals in companies who feel that they are successful, feel less isolated, while individuals who think they are less successful feel more isolated in business life. It is thought that emotional labor will have an important role in terms of achieving success both in organizational and individual basis and in occurrence of various attitudes and behaviors. For this reason, it is aimed to do a research on the link between emotional labor and loneliness in organizational life of employees of sports businesses. Between emotional labor and level of loneliness in organizational life, inverse relationship is expected to be found.

## **2. Method**

### **2.1. Research Model**

The study is carried out to evaluate the relationship between emotional labor of sports business employees and loneliness levels in organizational life. Accordingly, relational screening method which is a research model aiming to determine the presence and / or degree of co- variation between two or more variables was used (Karasar, 2016).

### **2.2. Participants**

In line with the purpose of the study, the population of the study consist of Sport İstanbul employees who work in the organization of Istanbul Metropolitan Municipality, and the sample is voluntary participants determined by simple random sampling method (n = 337). After examining the responses of the participants to the scales, in total the scale of the (n=330) participant was taken into consideration by removing missing and incorrectly filled scales.

### **2.3. Measurement Tools**

Descriptive form created by the researcher consists of 4 questions: marital status, status, professional experience and educational level. “Emotional Labor Scale” consisting of 13 items and 3 sub-dimensions, Developed by Diefendorff, James, Meredith Croyle and Robin (2005) and adapted to Turkish by Basım and Likirbaş (2012) was implemented. Scale superficial role behavior (Articles of 1,2,3,4,5,6.) are formed in-depth role behavior (articles of 7,8,9,10.), and intimate role behavior sub-dimensions (articles of11,12,13.). In his study Turhan (2019) found emotional labor scale Cronbach Alpha Coefficient as 0.949 in superficial role behavior sub-dimension, 0.940 in in-depth role behavior sub-dimension and 0.939 in intimate role behavior sub-dimension. The scale is rated as 5-point Likert type. “Loneliness Scale in Business Life” consists of 16 items, developed by Wright, Burt and Strongman (2006), and adapted to Turkish by Doğan, Çetin and Sungur (2009) is used to identify employees' loneliness in organizational life. Researchers (2009) revealed the scale's Cronbach Alpha value as 0, 90 and they stated that it was reliable. The Scale consists of "Emotional deprivation" (Articles 1, 2, 3, 4, 5, 6, 7, 8 and 9) and “Social friendship” (Articles 10, 11, 12, 13, 14, 15 and 16) sub-dimensions. Articles 5-6-10-11-12-14-15 and 16” of the scale asked in reverse this way and coding during analysis implemented accordingly. Articles in the scale of loneliness in business life are rated as 5-point Likert type.

### **2.4. Data Analysis**

The data which is acquired from personal information form, emotional labor and loneliness scales in business life were entered to SPSS25.0 package program and analyzes were carried out through this program. Personal information about candidates, average inventory and factor scores are given by detecting frequency (f) and percentage (%) values. The normal distribution of points was revealed by examining normal distribution curves, skewness-kurtosis values, normal distribution curves through histograms, and Kolmogorov-Smirnov test values used when the group size is greater than 50. The data do not show normal distribution. As a statistical process, Spearman Correlation and Regression analysis were used.

### 3. Findings

**Table 1.** Demographic characteristics of the participants

		f	%
Marital status	Married	256	77.6
	Single	74	22.4
Status in the Institution	Manager	49	14.8
	Trainer / Coach	128	38.8
	Office Staff	153	46.4
Professional Experience	1-5 Year	30	9.1
	6-10 Year	100	30.3
	11 Year and Above	200	60.6
Education level	Middle School	51	15.5
	High School	64	19.4
	University	188	57.0
	Graduate	27	8.2

When Table 1 is examined; it is revealed that 77.6% of the participants are married, 22.4% of them are single, 14.8% of them are manager, 38.8% of them are trainer / coach and 46.4% of them work as office staff. Also, 9.1% of them have 1-5 years, 30.3% of them have 6-10 years, 60.6% of them have 11 years or more of professional experience, 15.5% of them have secondary school, 19.4% of them have high school education level, 57% of them have university education and 8.2% of them have graduate education.

**Table 2.** Descriptive analysis of the answers given to the scales

	n	Mean± Sd
Emotional Deprivation	330	2.37±0.46
Social Friendship	330	2.00±0.63
Loneliness in Business Life	330	2.21±0.48
Superficial Role Behavior	330	2.18±0.82
In-depth Role Behavior	330	3.59±0.84
Sincere Role Behavior	330	3.97±0.74
Emotional Labor Total	330	3.03±0.48

When Table 2 is examined; it is determined that loneliness scale of the participants in business life, average of emotional deprivation subscale is 2.37±0.46, average of social friendship subscale is 2.00±0.63, and total average of loneliness scale in business life is 2.21±0.48. According to the determinations, emotional labor scale of the participants, the average of superficial role behavior sub-size is 2.18±0.82, the average of in-depth role behavior sub-dimension is 3.59±0.84, the average of candid role behavior sub-dimension is 3.97±0.74, and the total average of emotional labor scale is 3.03±0.48.

**Table 3.** The relationship between emotional labor level and loneliness in organizational life

		Loneliness in Organizational Life
<b>Emotional Labor</b>	r	-.462
	p	.000
	n	330

\*\*P<0.01

When the relationship between the emotional labor level of the sports organization employees and the level of loneliness in organizational life is examined in Table 3; a moderate negative relationship was found between emotional labor and loneliness in organizational life (r=-.462; p=.000).

**Table 4.** Regression analysis for predicting loneliness in organizational life

	B	Standard Error B	$\beta$	T	p	VIF
<b>Stationary</b>	2.045	.168		12.149	.000	
<b>Emotional Labor</b>	.054	.055	.054	.975	.000	1.000
R= -.462	R <sup>2</sup> =.213					
F <sub>(1.528)</sub> =17.500	P<0.001					
Durbin Watson=1.711						

\*\*P&lt;0.01

When Table 4 is analyzed, it is seen that there is a relationship between the emotional labor level of the sports organization employees and the level of loneliness in organizational life ( $R=-.462$ ;  $R^2=.213$ ;  $P<.001$ ). Standardized regression coefficient values ( $\beta$ )=.054,  $t=12.149$ ,  $p=.000$  reveals that emotional labor is the predictor of loneliness in organizational life and, it explains approximately 21% of the total variance. In other words, as the level of emotional labor provided to the organization by employee increases, the levels of loneliness in business life decrease. According to the analysis data,  $VIF < 5$  indicates that there is no multiple co-linearity problem and the fact that Durbin Watson value is around 2 indicates that there is no autocorrelation between the error terms (Gürbüz and Şahin, 2018).

#### 4. Conclusion and Discussion

It is observed that the level of loneliness and emotional labor in the business life of the sports organization employees is at a good level. Establishing a good level of emotional ties with employees constitutes an important indicator especially for service businesses. Considering the fact that the feeling of appreciation of the workers turns into positive behavior, it shouldn't be forgotten that the performance of individuals who have positive personal life and working life and who are pleased with their work will be higher and their performance will turn into a work of good quality. As a result of experiencing loneliness, workers are not able to deliver great performance, and their feelings redound negatively on their bond with organization, job satisfaction and desire to show organizational citizenship behavior (Turhan, 2019).

It has been confirmed that there is an intermediate level negative correlation between the emotional labor of sports organization employees and their level of loneliness in the organizational life. In other words, the more increase in the level of emotional labor provided by the employee to the business, the less becomes the level of feeling loneliness in business life. In a similar work, Turhan (2019) expresses that there is an inverse, low-level and meaningful correlation between emotional labor, the dimension of in-depth attitude and loneliness in business life, sub-dimension of emotional deprivation and inverse, low-level and meaningful correlation between emotional labor, sincere role behavior and loneliness in business life and sub-dimension of social friendship. In the literature, not enough number of studies which study on the correlation between emotional labor and level of loneliness in organizational life has been encountered. Acar (2019) expressed that there is a low-level correlation between emotional labor and organizational commitment. Gafa (2019) expressed that there is a strong inverse correlation between the job satisfaction scores and scores in loneliness in work life of form teachers.

It has been confirmed that the level of emotional labor of sports organization employees is the precursor variable of loneliness in organizational life and clarifies the 21% of the total variance. In other words, it is noticed that emotional labor plays an important role in reducing the level of loneliness in work life.

When literature is examined, Turhan (2019) states that the workers' showing organizational citizenship behavior interacts positively with showing emotional labor and in this interaction, the role of loneliness in organizational life is negative. Keser and Karaduman (2014) state that there is a negative correlation between organizational citizenship behavior and loneliness. Bıyık and Aydoğan (2014), in the study that they have conducted, have confirmed that there is a positive and meaningful correlation between emotional labor and organizational citizenship.

It is needed that employees are provided with both financial and moral support which they need to have to find creative solutions and fulfill their duties efficiently and productively. Employees with the sense that they are not provided with support in subjects that they need, cause that employees feel a sense of loneliness (Eroğlu, 2018).

Consequently, it is determined that there is a intermediate level negative correlation between the level of emotional labor and loneliness level in organizational life of sports organization employees, it is also determined that emotional labor is the predictor variable of loneliness and clarifies 21% of the total variance. The more intended increase in the employees' level of satisfying the expectations, the less feeling of loneliness in work life occurs. Because of this, it is understood that emotional labor takes up an important role in level of loneliness in work life.

Researches about the differences between the demographic characteristics of individuals working in sports service areas and the levels of loneliness in emotional labor and organizational life contribute to the literature. In addition, the relationship between customer-oriented behavior that is thought to affect loneliness in organizational life and internal entrepreneurship behavior can be examined.

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## Evaluation of the use of Fatal Vision Goggles in the Education of Students of Health Sciences in Basic Life Support\*

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### ABSTRACT

The harmful use of alcohol is a global problem. Fatal Vision Goggles (FVG) are used within driver education programs in Slovenia for preventing drunk driving. The Faculty of Health Sciences at the University of Ljubljana has also introduced FVG into the education of health care students. The purpose of our research is to evaluate the experience of performing cardiopulmonary resuscitation (CPR) with FVG among students of health care. The results show that performing CPR with FVG is difficult, especially regarding correctly locating the place of chest compressions. The majority, 42 participants, reported the negative effects of alcohol. Sixteen students stated that they would not perform CPR in this condition. They stated that the experience of performing CPR with FVG is instructive (n = 39), useful (n = 35) and interesting (n = 34). The findings highlight the importance of practical learning exercises using FVG for the readiness to act in a real situation and alcohol drinking prevention.

Keywords:

alcohol consumption, Fatal Vision Goggles, cardiopulmonary resuscitation

### 1. Introduction

The harmful use of alcohol is a global problem (Rocco et al., 2014). It seriously influences public health and is one of the main health risk factors globally. Alcohol consumption causes 3 million deaths each year globally as well as increases the disabilities and poor health of millions of people. Overall, the harmful use of alcohol is responsible for 5 % of the global burden of disease (World Health Organisation, 2018). In Slovenia, every year, an average of 927 people die because of the harmful effects of alcohol use on health and in traffic accidents caused by drunk drivers. Forty-three per cent of adults aged 25–64 are drinking highly hazardously (National Institute of Public Health and the Ministry of Health of Slovenia, 2019). According to studies, the consumption of alcohol is broadly reported among university students; moreover, the alcohol usage peaks in this group (Chu et al., 2016; Karem, Kypri, and Salamoun, 2007; Gill, 2002). They seem to consume more alcohol than their counterparts in the general population do. To reduce alcohol-related harm, the World Health Organization recommends taking evidence-based action to prevent drinking (World Health Organisation, 2018). According to the fact that alcohol intoxication is involved in 33–69% of fatal traffic incidents (World Health Organisation, 2018), Fatal Vision Goggles (FVG) have become equipment used within driver education programs for preventing drunk driving, also in Slovenia (Auto moto association Slovenia, 2017). FVG are image-distorting equipment used within driver education programs to demonstrate the concept of alcohol-induced impairment (Mc Cartney, Desbrow and Irwin, 2017). This hands-on awareness-building tool allows sober people to experience what it is like to be under the influence of alcohol. Simple activities with the FVG such as walking a line, one-leg standing, reaching out to grab a set of car keys or tossing a ball become important 'a-ha' moments as participants realise how susceptible they are to

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the potentially dangerous consequences of impairment due to alcohol (Innocorp, NK). The Faculty of Health Sciences at the University of Ljubljana, Slovenia, has also introduced FVG into the education of health care students. Students are educated about first aid, including cardiopulmonary resuscitation (CPR). They may find themselves in a situation in which they will have to use medical skills in their free time, even if they are intoxicated because the law obliges them (Health Care and Health Insurance Act, 2006). One such example is performing CPR. Research findings confirm that quality CPR increases the chance of survival of the person with cardiac arrest (Kragholm et al., 2017; Goto, 2017; Hasselqvist-Ax et al., 2015). We assume that resuscitation in the intoxicated state is difficult. Alcohol is a toxic and psychoactive substance and causes changes in psychological functioning that disrupt cognitive processes. There are also negative effects of alcohol on physical performance. (World Health Organisation, 2018; Kypri and McCambridge, 2018; Rocco et al., 2014; Sullivan, Harris and Pfefferbaum, 2010).

The purpose of our research is to evaluate the experience of performing CPR with FVG among students of health care. The aim is to determine how the use of FVG influences performing CPR on the mannequin-training model, what emotions students were experiencing, and what they learned from that experience. We also wanted to learn their opinion about performing CPR if they were drunk and how they assess the usefulness of FVG as preparation for real situations.

## 2. Methods

Data collection took place in the context of experimental research methods. Before that, we made a critical review of Slovene and English literature. In the 2019-2020 academic year, we conducted the research in the classroom for first aid training at the Faculty of Health Sciences, University of Ljubljana. We included 78 students of the Faculty of Health Sciences University in Ljubljana and Faculty of Psychotherapy Science of the Sigmund Freud University. Before the experiment, they had theoretical and practical lectures on first-aid measures, also CPR, but without FVG. In the survey, we asked the participants to act in a hypothetical situation that required performing CPR on the mannequin-training model, with an available first aid kit. They put on FVG. We asked all students from the group to leave the classroom.

Meanwhile, we prepared everything necessary for the experiment, and then students entered the classroom one by one. We prepared the same scenario for all students and provided the same description of the hypothetical situation before they entered the classroom. We asked students to provide first aid to a person who was lying on the ground in a park near their home. They found that person when they were returning from the party late at night. They were drinking alcohol, which FVG simulated. The person was lying unconscious and was not breathing. We were observing the students when they were providing CPR. After CPR was performed, we collected the data with an evaluation questionnaire; the questions were based on the literature review. Participation in the experiment was voluntary and anonymous. With the evaluation questionnaire, we collected the opinions of the students about this experience and some demographical data. The evaluation questionnaire was anonymous and contained seven open questions. We coded the texts of the completed evaluation questionnaires into categories, and two independent researchers analysed the texts and combined them in the final results. With the anonymous questionnaire, we obtained demographic and some numeric data. We processed the data obtained through questionnaires and evaluation papers with Microsoft Office Excel 2017. We presented the data graphically and descriptively.

## 3. Results

In the sample were seventy-eight students: of them, 85% were females. Sixty-one per cent of the sample were students at the Faculty of Health Sciences in the directions of Healthcare, Occupational Therapy, and Physiotherapy, while 39% were the students of Psychotherapy Science of the Sigmund Freud University. Most (n = 72) have already been drunk.

The results show that the average self-assessment of self-esteem during performing CPR with FVG is 5.5 ('1' means totally not self-confident, and '10' means totally self-confident). The average self-assessment of the ability to perform CPR in such a condition (drunk) if that kind of situation were to happen in reality is 4.7.

The results of participants' answers show that performing CPR with FVG is difficult, especially locating the spot of chest compressions (Table 1).

**Table 1.** Opinions of participants in the category Performing CPR.

<b>Category: Performing CPR</b>		
<b>Subcategories</b>	<b>Number of citations</b>	<b>Examples of citations</b>
<b>Incorrect chest compressions</b>	47	'It was harder to locate the right place of chest compressions.' 'The chest compressions were uneven.'
<b>Difficult approach</b>	18	'It was difficult to approach in such a condition.'
<b>Slow procedures</b>	16	'It took me a long time to figure out what I needed to do.'
<b>Limited safety</b>	15	'I neither took care of the security, nor could I see the danger.'
<b>Incorrect artificial breathing</b>	5	'The artificial breaths were insufficient, as I could not find a mouth for the place of the breath.'

Participants experience how alcohol impairs a person’s balance, coordination, vision, reaction time, and judgment. (Table 2). Their coordination, balance, and visual perceptions were worse.

**Table 2.** Opinions of participants in the category of sensory and cognitive processes.

<b>Category: Sensory and cognitive processes</b>		
<b>Subcategories</b>	<b>Number of citations</b>	<b>Examples of citations</b>
<b>Weak coordination</b>	43	'I almost stumbled.' 'You have no feeling for space; movement coordination got reduced.'
<b>Thought disorders, confusion</b>	28	'I was confused.' 'Nervous and under pressure, I just froze.'
<b>Limited visual perception</b>	20	'Vision got blurred.'
<b>Limited physical ability</b>	12	'It made me sick.' 'I became dizzy and physically unstable.'
<b>Worsened ability to make decisions</b>	9	'In such a condition, we forget about important things.' 'Decision-making abilities are worse.'

Most often, students felt fear and helplessness during the experiment. (Table 3)

**Table 3.** Opinions of participants in the category Emotions experienced.

<b>Category: Emotions experienced</b>		
<b>Subcategories</b>	<b>Number of citations</b>	<b>Examples of citations</b>
<b>Powerless</b>	24	'It was hard... you feel so helpless.'
<b>Fear</b>	14	'The situation is scary and stressful.' 'I'm afraid I would hurt someone.'
<b>Horror</b>	9	'That would be awful, quite frustrating.'
<b>Doubt</b>	9	'You're not sure you're performing CPR properly.' 'I had doubts.'
<b>Uncomfortable</b>	9	'It's not pleasant, I don't want that.'
<b>Guilt</b>	7	'I would have a great feeling of guilt of being drunk if someone would not survive the accident.' 'It's irresponsible; the consequences are severe.'
<b>Anxiety</b>	5	'The consequences would worry me.' 'It is worrying.'
<b>Positive impact on self-esteem</b>	5	'Nevertheless, as such, you're still more relaxed and confident as you don't know how serious it is.'
<b>Negative impact on self-esteem</b>	3	'I wouldn't be so confident as I were sober.'
<b>Other</b>	3	'Comical.' 'For the first time, I see what it's like to be intoxicated.'

Sixteen students stated that they would not attempt to perform CPR in such a condition; six would call another person for help. (Table 4)

**Table 4.** Opinions of participants in the category Ability to perform CPR in a state of alcohol intoxication.

<b>Category: Ability to perform CPR in a state of alcohol intoxication</b>		
<b>Subcategories</b>	<b>Number of citations</b>	<b>Examples of citations</b>
<b>Competent</b>	23	'I would try to do my best.' 'Even in such a case, I can do CPR.'
<b>Incompetent</b>	16	'I wouldn't even think about performing CPR.' 'I'd just freeze and watch.'
<b>Call another person for help</b>	6	'I would call for the help of someone who is sober.'
<b>I do not know</b>	5	'I don't know how I would react.' 'That is the question.'

The majority, 42 participants, reported the negative impacts of alcohol. (Table 5)

**Table 5.** Opinions of participants in the category Effects of alcohol.

<b>Category: Effects of alcohol</b>		
<b>Subcategories</b>	<b>Number of citations</b>	<b>Examples of citations</b>
<b>Negative</b>	42	'Your abilities are reduced when you are drunk.' 'Alcohol makes you incapable.'
<b>Other</b>	9	'It's different when you're drunk.' 'Alcoholism is a real problem in Slovenia.'
<b>Positive</b>	4	'You can perform CPR even if you are drunk; you're even more confident.'

Participants wrote that the experience of performing CPR with FVG was instructive, useful, and interesting.

**Table 6.** Opinions of participants in the category Experience performing CPR with FVG.

<b>Category: Experience performing CPR with FVG</b>		
<b>Subcategories</b>	<b>Number of citations</b>	<b>Examples of citations</b>
<b>Instructive</b>	39	'You can imagine how it is in a real situation.' 'A good accessory (goggles) because you can learn a lot from the situation.'
<b>Useful</b>	35	'Useful; it can help us.'
<b>Interesting</b>	34	'Good idea, an interesting experience.'
<b>Encourage thinking</b>	22	'It makes you think what it would be like if it really happened.'
<b>Unreal</b>	9	'It did not affect me personally; these goggles only affected my vision; they did not impair other senses.' 'It's not real; you can rely on other senses.'
<b>Suggestions to include in other areas</b>	8	'It would make sense to include this experience in schools.' 'Also in driver's ed courses.' 'All students should try that.'

The situation of performing CPR with FVG aids in understanding the importance of being sober when helping others. (Table 7)

**Table 7.** Opinions of participants in the category Insights.

<b>Category: Insights</b>	
<b>Subcategories</b>	<b>Examples Of citations</b>
<b>Meaning of CPR</b>	'I realised the importance of first aid knowledge that everyone should have.' 'How important CPR is and how important minutes, seconds are in such a situation.' 'If I have the knowledge, I can help others.'
<b>Meaning of mutual assistance</b>	'It is important that we are able to help a person in need anytime.'
<b>Importance of sobriety</b>	'It is not worth reducing someone's chance of survival because of alcohol.' 'You have to be sober; this is very important for the life of the injured person.' 'Normal limits of alcohol... you never know what can come.'
<b>Importance of preventive</b>	'It is important to warn young people about the dangers of alcohol and drugs.' 'We need to reduce alcohol-related accidents.'
<b>Other</b>	'How very helpless you are in this condition.' 'I made the right decision not to drink alcohol anymore.' 'It put me firmly on the ground.'

#### 4. Discussion and conclusions

In-person CPR training has long been the gold standard, but additional accessories and new technologies have evolved (Nas et al., 2019). The European Resuscitation Council guidelines (European Resuscitation Council, 2015) and international guidelines for first aid and resuscitation (International Federation of Red Cross and Red Crescent, 2016) support the use of simulations in teaching basic resuscitation procedures. In our experiment, we evaluated the use of FVG involved in the scenario of basic resuscitation procedures (CPR). We ascertain the positive effects of FVG use; they influence their readiness to act in real accidents and stimulate their critical thinking towards unhealthy drinking of alcohol.

Most students stated that they had already experience intoxication, which confirms that the alcohol-drinking problem is current. The results of the experiment confirm the negative effects of intoxication on psychophysical abilities, and consequently on the ability to perform CPR. In order to perform CPR effectively, it is necessary to perform proper chest compressions (European Resuscitation Council, 2015). According to the students', with FVG, it is more difficult to find the right place, press deep enough, and at the right pace when performing CPR. They also have similar opinions about properly administering artificial respiration. They stated that performing all the procedures related to CPR was slow, difficult, and often dangerous. CPR is even more difficult due to limited visual perception, confusion, and weak coordination. All of that was accompanied by many emotional reactions, including fear, doubt, and guilt. An important finding of our research is that sixteen students stated that they would not perform CPR in such a condition.

Moreover, even though students know how to perform CPR, the average self-assessment about self-esteem is low: 5.5/10 with FVG and 4.7/10 if they were drunk. It needs to be considered that FVG simulate only part of the feeling of intoxication, as they affect vision and coordination while the person is still able to think soberly. However, in the students' opinions and many insights, the experience of performing CPR with FVG is valuable for all participants. These are just some of the reasons that using FVG for pedagogical purposes makes sense. McCartney, Desbrow, and Irwin (2017) similarly evaluated using alcohol intoxication goggles to detect alcohol-related impairment in simulated driving. They concluded that FVG might benefit at specific driving performance measurements in repeated impairments due to alcohol. The equipment may offer an alternative approach to the impact on alcohol intoxication on simulated driving performance.

When planning the learning process, also CPR training, it should be considered that most adults find it easy to accept information in interactive environments (LaVelle and McLaughlin, 2008) and when they are actively involved in the learning process (Clemow, 2007). One novel training methods is virtual reality (Semeraro et al., 2017). It may represent a powerful tool for CPR training. Seventy-three per cent of the participants in the research (Semeraro et al., 2017) believe that virtual reality could play an important role in the future of training. Finally, we need to follow the interesting development of the learning process, but it is essential to combine it with traditional ways of learning.

#### 5. Limitations of the Study

This study has several limitations. Although experimental in design, one of the limitations of this study is the small sample size. FVG only affected vision but did not deprive other senses, so we obtained only partial results about the effect of alcohol intoxication when performing CPR.

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# The Role of Freedom Perceived in Leisure on Happiness and Mental Well-Being\*

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## ABSTRACT

In this study, it was aimed to determine the effect of the freedom perceived by individuals participating in sportive recreational activities on the level of happiness and mental well-being. The research was conducted by a total of 461 volunteer individuals participating in sporting recreation events in The Eastern Anatolia Region of Turkey. In addition to the personal information form as a data collection tool, "Freedom Perceived in Leisure Scale", "Oxford Happiness Scale" and "Mental Well-Being Scale" were used. Pearson Correlation and Linear Regression analysis were performed using the SPSS package program in the analysis of the data obtained. According to the research findings, it was determined that there was a statistically positive moderate relationship between freedom perceived in leisure and happiness and mental well-being. In addition, it was determined that freedom perceived in leisure predicted happiness level by 15% and mental well-being level by 14%. As a result, it was observed that the freedom that the individuals participating in the study perceive in leisure has made them happy and affect them positively.

### Keywords:

Leisure, perceived freedom, happiness, mental well-being

## 1. Introduction

Time is a very valuable, unique and universal resource that human beings are in at any moment, that continues beyond their control and can never be returned, whose value cannot be measured, and that every person on earth can have equally, but is used differently by everyone (Örücü & Kanbur, 2007). The best and most efficient use of time is an inevitable necessity for today's people (Karaküçük, 2008; Keskin & Bayram, 2018).

When the way people use their time is considered, the role of leisure has become undeniably important with the developing and changing living conditions in the social structure (Henderson, 2010; Ekinçi & Ozdilek, 2019). Nowadays, leisure is the time interval in which the individual can freely decide and implement all the difficulties and connections he has left from his compulsory work in order to maintain his life or to meet the practical basic needs of his life (eating, sleeping, working, etc.) (Mull et al., 1997). According to Torkildsen (2005), leisure is defined as having fun, relaxing, activities for individual development or freedom (Tordkilsen, 2005). The time that people devote to and enjoy themselves, except for the routine work they do, is called leisure (Hazar, 2003). Arguing that the most important variable of leisure is perceived freedom, Neulinger (1981) defines perceived freedom as "the individual's desire for what he/she does, and the mood he/she feels as a result of his/her preference". (Neulinger, 1981). According to Kane et al. (1977), perceived freedom provides a causal relationship between individual and activity participation behavior and forms a

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basis for the individual's participation in the activity (Kane et al., 1977). Iso-ahola (1980), on the other hand, explained that internal motivation and freedom perception are two important conditions for effective leisure but the most important condition is the perception of freedom (Iso-Ahola, 1980).

Freedom perceived in leisure is defined as the situation in which the individual feels that he/she is doing it by choosing it and does it by desire. It is thought that individuals who think they have more freedom during their leisure experiences may tend to reveal a higher sense of internal motivation, competence, and happiness (Eskiler, Yildiz & Ayhan, 2019; Janke et al., 2010; Soyer et al., 2017).

Happiness is one of the basic needs of human beings, and thanks to this feeling, individuals feel more secure and successful. Happiness is an emotion and a reward that is felt after a successful job (Öztekin, 2016). It can be defined as happiness that the individual feels perfect and enjoys his life. Happiness, defined as subjective well-being in psychology, is an important need for individuals just like physiological needs (Layard, 2005).

Happiness can be defined in two ways: the hedonic approach and development-oriented approach (Myers & Deiner, 1995). According to the hedonic approach; it is the emotional state that occurs when negative emotions (anger, fear, sadness, etc.) are experienced less, and positive emotions are experienced by experiencing more intensely and getting enough satisfaction from life (Diener et al., 1999). According to the development-oriented approach; it is defined as closely related to the fact that the individual realizes himself by using his potential and powers in the most positive way and finds meaning in life by living a virtuous life (Koydemir & Mısır, 2015). The concept of happiness can be defined in many different ways, but the most basic and common judgment in these definitions is the positive psychological effects on the individual. Another fact that we can talk about the positive psychological effects on individuals is the concept of mental well-being.

Mental well-being can be defined as having healthy relationships with other individuals by experiencing positive emotions such as inner peace, satisfaction, happiness, and joy, being able to deal with stress faced by being aware of their abilities in a confident way, being able to take responsibilities, contributing to society in line with their abilities as useful and productive in work-life (WHO, 2004). An individual's psychological healthy life can be explained by the concept of mental well-being. Psychological well-being is related to revealing its own potential for a meaningful life in the face of various difficulties faced by the individual (Cenkseven Önder & Mukba, 2017). Mental well-being that deals with psychological conditions that may affect the mental, physical and social health of the person, which may be related to their present or past life experiences; have a multidimensional structure consisting of satisfaction, positive emotion, and psychological activity (Telef et al., 2013). It contains important results not only with the resources necessary for satisfying and stable relationships but also with health and social issues (Tennant et al., 2007).

The concepts of freedom, happiness, and mental well-being perceived in leisure have important effects on the psychologies of individuals, as can be understood from their definitions. Therefore, they interact with each other. Lee et al. (2012) mentioned that physical activities have several positive effects on individual's well-being. Taşkıran and Kaya (2015) stated that sportive recreational activities have positive physical and physiological effects on individuals. In another study, Ekinçi et al. (2014) stated that participating to the recreational activities increase the level of perceived freedom among university students. From this point on, this research was carried out to determine the effect of freedom perceived in leisure on happiness and mental well-being. For this purpose, answers to the following questions have been sought:

- 1- Is there a relationship between freedom perceived in leisure and happiness and mental well-being in individuals participating in sportive recreational activities?
- 2- Does freedom perceived in leisure has an effect on happiness variables in individuals who are participating in sportive recreational activities?
- 3- Does freedom perceived in leisure has an effect on mental well-being variables in individuals who are participating in sportive recreational activities?

## **2. Method**

### **2.1. Model of the Research and Participants**

In this study, in order to reach a general judgment about the universe, in a universe consisting of a large number of elements based on the quantitative research design, the general screening model in which the screening is performed on the entire universe or a sample to be taken from it is used (Karasar, 2012). The sample of the study consisted of 461 volunteer individuals who participated in sportive recreational activities in the Eastern Anatolia region of Turkey. While obtaining data from these individuals, face-to-face survey method was used.

## 2.2. Data Collection Tools

In the research, the personal information form of the participants, Perceived Freedom in Leisure, Oxford Happiness, and Mental Well-being scale were used as data collection tools.

### 2.2.1. Personal information form

Gender, age, marital status, and daily leisure duration of the volunteers participating in the study were given below (Table 1).

**Table 1.** Demographic characteristics of participants

Variables	Categories	n	%
Gender	Woman	137	29.7
	Man	324	70.3
	Total	461	100.0
Age	18-21	70	15.2
	22-25	184	39.9
	26-29	99	21.5
	30-33	65	14.1
	+34	43	9.3
	Total	461	100.0
Marital status	Married	102	22.1
	Single	359	77.9
	Total	461	100.0
Daily leisure	1-3 hour	190	41.2
	4-7 hour	169	36.7
	+7 hour	102	22.1
	Total	461	100.0

### 2.2.2. Perceived freedom in leisure scale

This scale, which was developed by Witt and Ellis (1985) and was first validated by Yerlisu Lapa and Ağyar (2011), was adapted with 17 items and 2 sub-dimensions. Later, by Yerlisu Lapa and Tercan Kaas (2017), this scale was adapted to Turkish culture as 25 items and one dimension as a result of testing with confirmatory factor analysis. The scale consists of a 5-point Likert type (1- Strongly disagree, 5- Strongly agree). The Cronbach alpha reliability coefficient calculated to test the reliability of the scale was found as .93. In the current study, this coefficient was found as .91.

### 2.2.3. Oxford happiness scale

Developed by Hills and Argyle (2002), this scale was adapted to Turkish by the validity and reliability study by Doğan and Çötök (2011). The scale is of 5-point Likert type (1- Never disagree, 5- Totally Agree) and consists of 7 items and one dimension. The Cronbach alpha reliability coefficient calculated to test the reliability of the scale was found to be .74. In the current study, this coefficient was found as .70.

### 2.2.4. Mental well-being scale



Developed by Tennant et al. (2007), this scale was adapted to Turkish by the validity and reliability study by Keldal (2015). The scale is a 5-point Likert type (1- Never agree, 5- Totally agree) and consists of 14 items and one dimension. The Cronbach alpha reliability coefficient calculated to test the reliability of the scale was found as .92. In the current study, this coefficient was found as .84.

### 2.3. Data Analysis

SPSS 24 (Statistical Package for Social Science) package program was used to analyze the data obtained in the research. The skewness and kurtosis values were checked to determine whether the data showed a normal distribution. These values are checked and evaluated between -1 and +1 (Mertler & Vannatta, 2005). As a result of this evaluation, it was seen that the data showed normal distribution. Accordingly, Pearson Correlation and Linear Regression analyses were used.

### 3. Results

The details of the findings based on the relationship and effect between the variables of freedom perceived in leisure, happiness, and mental well-being in individuals participating in sportive recreational activities, and the effect-based analysis were given in the Table 2-3-4.

**Table 2.** Correlation analysis on freedom perceived in leisure, happiness, and mental well-being levels

		(1)	(2)	(3)
(1) Freedom perceived in leisure	r	1		
	p			
(2) Happiness	r	.393**	1	
	p	.000		
(3) Mental well-being	r	.379**	.655**	1
	p	.000	.000	

n= 461; \*\*p< .01

When the results are analyzed, it was determined that there was a moderately significant positive relationship between freedom perceived in leisure and happiness and mental well-being (p< .01). In addition, a moderately significant positive relationship was found between happiness and mental well-being (p< .01).

**Table 3.** The effect of freedom perceived in leisure on happiness

Dependent Variable: Happiness					
Variables	B	Standard Error	$\beta$	t	p
(Constant)	18.356	.867		21.165	.000
Freedom perceived in leisure	.088	.010	.393	9.147	.000
R <sup>2</sup> = .154; adj.R <sup>2</sup> = .152					
F= 83.676; p< .01					
Method: Enter					

According to the results of regression analysis, it was determined that the freedom perceived in leisure predicted the happiness variable by 15% (adj.R<sup>2</sup>= .152). In other words, it was determined that freedom perceived in leisure had a statistically significant effect on the happiness variable ( $\beta$ = .393; p< .01).

**Table 4.** The effect of freedom perceived in leisure on mental well-being

Dependent Variable: Mental well-being					
Variables	B	Standard Error	$\beta$	t	p
(Constant)	39.721	1.699		23.378	.000
Freedom Perceived in leisure	.166	.019	.379	8.768	.000
R <sup>2</sup> = .143; adj.R <sup>2</sup> = .142					
F= 76.871; p< 01					
Method: Enter					

According to the results of regression analysis, it was determined that freedom perceived in leisure predicted the mental well-being variable by 14% (adj.R<sup>2</sup>= .142). In other words, it was determined that freedom perceived in leisure affects the mental well-being variable statistically ( $\beta = .379$ ;  $p < .01$ ).

#### **4. Discussion**

In this study, which was conducted to determine the effect of freedom perceived in leisure on the level of happiness and mental well-being in individuals who spend their leisure by doing sports, it was observed that there was a moderate positive relationship between freedom perceived in leisure and happiness and mental well-being. It is seen from these results that the activity choice of individuals in their leisure is based on free will and that this will increase and individuals have psychologically positive emotions. Sport, which is the most important of the activities that individuals do in their leisure, is thought to have an important role in this psychological factor. When the literature is analyzed, in a study conducted by Göklemen (2019) on archers, it was found that there was a positive relationship between freedom perceived in leisure and psycho-social benefit variable. Lifestyle with the people in the group in which the participants using the Olympic bows participate in leisure activities, emphasized that there were significant increases in his thoughts and values. In a different study, it was emphasized that sportive leisure activities have a very special place in the lives of individuals, and these activities develop individuals' creativity spirit, increase their happiness and have a positive effect on their life satisfaction (Demirel & Harmandar, 2009).

When the regression analysis results of freedom perceived in leisure and happiness variable were examined, it was determined that freedom perceived in leisure predicted happiness variable by 15%. It has been determined that freedom perceived in leisure significantly affects the variable of happiness. It is thought that the individual's evaluation of his/her leisure with her free will make her feel more satisfied with life by creating a feeling of satisfaction by pushing his/her to do activities that are relaxing, entertaining, happy, and stress-free. Therefore, it can be said that in evaluating leisure actively in this way, it will have important effects on many important factors such as working life, friends, family, and social environment. Akyıldız (2013) reported that thanks to the recreational activities that the individual participates, the individual will feel happy and feel psychologically relaxed and that the individual will ensure the continuity of these psychological benefits. Janke et al. (2010), it was concluded that individuals with a higher sense of freedom in participating in leisure activities had a higher sense of happiness. Kim et al. (2019) reported in a study conducted by campers that serious leisure of campers positively affected happiness. He also emphasized that leisure plays an important role in perceived happiness in line with the results obtained. Lee et al. (2019) emphasized that happiness increases as leisure time increases in individuals and leisure satisfaction has a significant effect on happiness.

When the regression analysis results of freedom perceived in leisure and mental well-being were examined, it was found that freedom perceived in leisure predicted mental well-being variable by 14%. It was determined that freedom perceived in leisure affects the mental well-being variable statistically significantly. It is thought that the freedom perceived by the individual in leisure will enable the individual to manage his/her relations positively and create a lifestyle philosophy in the individual in terms of the time he/she will devote the individual to social and physical activities. When the literature on the subject was examined, Kekäläinen et al. (2019) emphasized that participation in physical activity should be encouraged to achieve good psychological well-being in the study conducted to examine the relationship between leisure physical activity, mental happiness and subjective health in adulthood. Çerez et al. (2017) found that leisure management and leisure exercise participation significantly predicted mental well-being. In line with these results, they reported that leisure exercise levels and psychological well-being levels of individuals who managed their leisure well and with their own will increase positively. Aydın et al. (2019) stated that individuals who participated in leisure activities had higher levels of psychological resilience than those who did not. They reported that as the participants' psychological resilience levels increased, their perception of leisure boredom decreased.

#### **5. Conclusion**

It was seen that the freedom perceived by the individuals participating in the research at the leisure has made them happy and affect them positively. Accordingly, as the level of freedom perceived by individuals increases, their levels of happiness and mental well-being increase. In this context, they were physically and

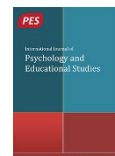
mentally positively affected by gaining qualified experiences through activities in which participants participated freely in their leisure time for personal purposes. In line with the results of the study, the issue of freedom perceived in leisure can be associated with psychological factors such as stress, anxiety, depression, mental resilience, self-confidence, and motivation and different studies can be conducted. Facilities for recreational activities can be built by the relevant public institutions and organizations in order for individuals to participate in the activities they choose with their free will. Awareness-raising lessons can be held by educational institutions and organizations about the benefits of sportive recreational activities from primary education. It is recommended that individuals develop their time management skills by planning time in order to spend time freely and consciously.

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## Academic Self-Efficacy Beliefs of Turkish and American Ph.D Students: A Comparative Study\*

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### ABSTRACT

The aim of the research is to comparatively investigate the opinions of students in doctoral education in the USA and Turkey about academic self-efficacy. The research used the basic qualitative research pattern from among qualitative research designs. The study group in the research comprised a total of 32 doctoral students with 16 from Turkey and 16 from the USA. Of these students, 25 were male (78%) and 7 were female (22%). With the aim of determining the participant group, criterion sampling was used from the targeted sampling methods. A semi-structured interview form was used to gather data in the research. For analysis of data, the content analysis technique was used. It has been determined by the results obtained from the study that Turkish and American students have similar goals to attend a Ph.D program in some respect and they have a high level of academic self-efficacy belief (ASEB) in using the relevant terminology and reaching the literature. In addition, it has been determined that Turkish students have a weaker academic self-efficacy belief than American students in respect of using scientific research methods and qualitative and quantitative data analysis techniques.

#### Keywords:

Academic self-efficacy, American and Turkish Ph.D students, doctorate, qualitative research

### 1. Introduction

There are several cognitive and affective factors which affect learning that is a complicated and multi-dimensional process. Affective factors considered much more important in recent years are related to personality traits of individuals such as interest, attitude, motivation, self-confidence and anticipation and they affect considerably success which an individual would reach in a particular subject. For Schunk (1991), self-efficacy emphasized frequently is one of the relevant motivational references which affect success of individuals and give shape to thoughts and behaviors of the individuals.

Self-efficacy, which was suggested by Bandura for the first time and is one of the key concepts for social learning theory (Pajares, 2002), is defined as self-belief of a person concerned with the trust in his/her own abilities to arrange necessary activities for the purpose of displaying a particular performance and to conduct it successfully (Bandura, 1986, 1997). Zimmerman (1995a) defined self-efficacy as "judgments of individuals in their abilities to carry out and achieve a work". Self-efficacy, as we understand from the definitions, is not a kind of ability (Donald, 2003; as cited in Acar, 2005). It is an internal belief of the individual in his personal answer to the question "what can I do" with his own abilities (Snyder & Lopez, 2002). Thus, Leithwood (2007) stated that self-efficacy perception is not real ability or competence of a person, but is a perceptual condition.

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For social learning theory, self-efficacy belief of the individuals develops depending on four references (Bandura, 1986, 1997) and people's belief in achievement may be strong or weak depending on these references. These references are (Bandura, 1994, 1997):

1. Personal experiences: These are direct experiences of the individuals concerning achievements and failures in the past (Hodges, 2005).
2. Social Models: Social models are indirect experiences that help individuals with improving self-confidence in their own capacity as a result of observing the people they took as a model (Bandura, 1994; Pajeras, 1996; Golightly, 2007).
3. Verbal persuasion: Verbal persuasion that may be positive or negative (Kiser, 2008) indicates statements of the people around an individual to back him up. Social support affects self-efficacy positively that is related to belief of the individual in his abilities (Pajeras, 1996; Stajkovic & Luthans, 1998).
4. Physiological and emotional condition: Feeling well in emotional manner affects positively self-efficacy belief of an individual and anxiety and stressful situations concerning his own ability affect negatively self-efficacy of the individual (Bandura, 1997).

There are various self-efficacy perceptions pertain to many behaviors arising from four references mentioned basically. "Academic self-efficacy" is one of the most important perceptions (Ekici, 2009). Academic self-efficacy that is a specific field of common self-efficacy perception is belief of a student in his abilities to complete an academic duty successfully (Zimmerman, 1995a). In other words, academic self-efficacy is belief of the individuals in their capabilities to fulfill academic duties in success, which are assigned at certain levels (Schunk, 1991; Bandura, 1997; Chun & Choi, 2005; Schunk, 2009).

The studies conducted indicate that students whose academic self-efficacy is high are disposed to overcome challenging duties (Bandura, 1994; Chemers, Hu & Garcia, 2001; Margolis & McCabe, 2004; Bassi, Stace, Fave & Caprara 2007), make more effort (Eggen & Kauchak, 1999) and they are more insistent and patient against the obstacles (Bandura, 1997). For Bandura (1997), individuals with high level of academic self-efficacy believe in themselves to plan, arrange and carry out their academic studies. It has been determined that students with high level of academic self-efficacy use more effective learning strategies (Bouffard-Bouchard, Parent & Larivee, 1991; Zimmerman 1995b; Schunk & Pajares, 2001; Zhang & Zhang 2003) and have abilities to choose and sustain superordinate goals (Zimmerman, Bandura & Martinez-Pons, 1992) and that they are consistent with their decisions and have more ordinary level of anxiety (Pajares, 1996). Moreover, ASEB have a critical role in improvement of critical thinking (Sang, Valcke, Van Braak & Tondeur, 2010) and problem solving abilities (Schunk & Pajares, 2001; Aurah, Cassady & McConnell, 2014). In conclusion, individuals with lower level of self-efficacy belief may feel more stressful, worried and anxious while the individuals with high level of ASEB feel more satisfaction and appreciation (Zimmerman, 1995b). Besides, they are more likely to fail as they give up quickly against challenging duties.

When examining the literature, it is seen that studies on self-efficacy are mostly in the field of academic performance, achievement and motivation. The studies conducted have demonstrated that ASEB increase motivation of the students and it is an important predictor for academic success, supports academic demands and that there is a positive relationship between academic self-efficacy and academic achievement (Bandura & Schunk, 1981; Betz & Hackett, 1981; Schunk, 1991; Multon, Brown & Lent, 1991; Zimmerman, Bandura & Martinez-Pons, 1992; Pajares & Miller, 1994; Bandura, Babaraneli, Caprara & Pastorelli, 1996; Pajares, 1996; Bandura, 1997; Pajares & Graham, 1999; Chemers, Hu & Garcia, 2001; Greene, Miller, Crowson, Duke & Akey, 2004; Robbins, Lauver, Le, Davis, Langley & Carlstrom, 2004; Sharm & Silbereisen, 2007; Caprara, Vecchione, Alessandri, Gerbino & Barbaranelli, 2011).

Academic self-efficacy, as a variable with predictive power for learning level and achievement in national and international literature, is a research subject in many grades from pre-school to the level of bachelor degree. However, it is seen that there is a limited number of studies in which academic self-efficacy of graduate, particularly Ph.D students are examined in terms of academic self-efficacy (Kahn & Scott, 1997; Bishop & Bieschke, 1998; Aslan, 2010; Overall, Deane & Peterson, 2011). Whereas, Ph.D program is the highest level of higher education system (Altbach, 2004) and it is usually considered as the farthest level which someone could achieve in academic discipline. Knowledge, skills and competences, which are asked to bring in students by Ph.D system in Turkey, are specified at 8<sup>th</sup> grade of National Qualifications

Framework for Higher Education in Turkey developed within Bologna. In general manner, it is tried through a Ph.D program to train individuals who are able to think in creative and critical manner, obtain original results, use the research methods, use his/her foreign language and who are researcher and respectful of ethical values, offer reasonable solutions to the problems, have a scientific point of view, attend team works and interdisciplinary studies, offer qualified studies and make a significant contribution to the society and mankind in this way (Aslan, 2010, The Council of Higher Education [TCHE], 2010). As for the USA, Council of Graduate Schools (CGS) of which mission is to enhance and improve graduate and Ph.D programs underlines similar abilities of the students in Turkey. CGS includes learning outcomes which attach importance mostly to concepts and skills, verbal and written communication, critical thinking, research methodology, research ethics, and contents pertain to study field of the students (Denecke, Kent & Wiener, 2011; Denecke, Kent & McCarthy, 2017). Therefore, Ph.D candidates predicted to gain these competences by their education play a pretty important role in establishing future of the countries by means of their field of specialization. For that reason, it is considered important to analyze academic self-efficacy levels of the students which it is closely related to their achievements.

Two studies have been found at the bachelor's degree in which efficacy beliefs of the undergraduates in science (Çakiroglu, Çakiroglu & Boone, 2005) and math teaching (Çakiroglu, 2008) are compared for Turkey and the USA. In addition, any other study including a comparison between Ph.D candidates in different countries in terms of academic self-efficacy hasn't been found. In addition, it is considered that studies on self-efficacy are quantitative studies in general and thus, results obtained from this study conducted by a qualitative approach would make a contribution to the literature. It is determined from this point that purpose of the study is to examine students' opinions on their academic self-efficacy who attend for a Ph.D program in the USA and Turkey.

It is tried to answer the following questions in direction of this purpose of the study:

1. What are purposes of Turkish and American students to attend a Ph.D program?
2. Concerning fields of Turkish and American students;
  - 2.1. How are academic self-efficacy beliefs in understanding and using the terminology,
  - 2.2. In scanning and reaching the relevant literature by using different databases,
  - 2.3. In using scientific research methods and techniques,
  - 2.4. In analyzing and interpreting qualitative and quantitative findings?

## **2. Method**

Basic qualitative research of the qualitative research designs has been used in the study. Basic qualitative researches which are most frequently used research methods in the field of education examine how people interpret their life and establish their world (Merriam & Tisdell, 2016). In this context, the mentioned method has been preferred in the study in order to present in an interpretive approach how Ph.D candidates evaluate and interpret themselves in terms of academic subjects and how they create their worlds.

### **2.1. Participant Group**

Study group of the research includes 32 Ph.D candidates: 16 from Turkey and 16 from the USA. 25 of these students are male (78%) and 7 of them are female (22%). Ph.D students attended the study from Turkey are students who attend a Ph.D program at the institutes affiliated to Ondokuz Mayıs University (n=10) and Atatürk University (n=6). As for the USA, Ph.D students attend a Ph.D program at Pennsylvania State University (n=14) and William & Mary University (n=2). Criterion sampling is to work with a group of participants who meet a series of criteria specified by the researcher (Büyüköztürk, Kılıç Çakmak, Akgün, Karadeniz & Demirel, 2015; Yıldırım & Şimşek, 2016). It is hence determined the first criterion is that participants would be only Ph.D candidates who are at the phase of thesis writing and the second criterion is that participants from Turkey would be Turkish citizens and participants from the USA would be American citizens. 12 of the American participants in the study were male as 4 of them were female. On the other hand, 13 of the Turkish participants were male and 3 of them were female. Instead of using the real names of the



participants, the code "A" for American participants and "T" for Turkish participants were used. For example, codes such as A-m1, A-f2, T-m4 and T-k3 were created. "e" and "f" in the codes represent gender.

## 2.2. Data Collection Tool

Semi-structured interview form has been used as data collection tool in the study. Questions used by Aslan (2010), other studies in the relevant literature and knowledge, skills and competences specified in National Qualifications Framework for Higher Education in Turkey were used while creating open ended questions used in the form. Turkish format of the data collection tool was applied to two Ph.D candidates after asking opinion of the specialists in education and in social studies education, and the pilot study was carried out. After the pilot study, final format was created by making some simple changes after another evaluation with the same specialists. In this way, 11 questions have been created on the semi-structured interview form for the participants. As for the English format, first it was translated by the researcher and then it was proposed to an English linguist. A pilot study wasn't conducted in the USA. A specialist working at Pennsylvania State University was asked to evaluate the form before applying it to the American Ph.D students and then it was put into final form. In this article, answers to 5 questions mentioned have been analyzed and presented in the findings due to page limit.

## 2.3. Data Collection

For the Ph.D students who do not accept face to face interview for various reasons, some alternatives were suggested such as filling out the interview form by handwriting or on-line. Two methods were used to collect data from Turkish students within the scope of the study. One of the students was interviewed online and other nine students were interviewed face to face. Other six students preferred to answer the questionnaire individually instead of talking face to face and they sent their answers by e-mail. Before face to face interviews, participants were informed on necessary subjects that their personal information would be confidential and code names would be given to them. Participants were asked to give permission for recording and taking notes. Interviews conducted by the researcher in person were conducted in 3 different places by the circumstances as office of the researcher, office of the participants and seminar room of the faculty. Probing questions were also used during the interviews in order to obtain much more information. The interviews took about 18 to 31 minutes. Before involving American students into the study, necessary permissions were taken from the Institutional Review Board (IRB) of Pennsylvania State University after a strict period and approval forms signed by the participants were arranged. All American participants approved to fill the form and they preferred to send it online.

## 2.4. Data Analysis

First, face to face interviews conducted with Turkish students were written through academic transcript and then forms of the American students were translated into Turkish. Translations were approved by English linguist. After all data got ready for the analysis, all interview documents were read thoroughly in order to reach an overall idea to the researcher. After that, content analysis technique was used in data analysis. Content analysis that is a commonly used and qualitative research method is a research method for making repetitive and valid inferences depending on the context where it is used (Krippendorff, 2004). Analyses conducted by the researcher to enhance validity and reliability in data analysis were submitted to an examination of a specialist who had experience in qualitative studies together with all the documentation. After positive feedbacks, direct quotations were presented without any comment in order to enhance reliability of the emerging findings (Le Compte & Goetz, 1982). Code names starting with "A" letter for American students and code names starting with "T" letter for Turkish Ph.D candidates have been presented in the presented quotations by considering gender variable.

## 3. Findings

This section includes findings and comments regarding the questions suggested in the study. Simple tables are illustrated just before content analyses for a better understanding of the findings. According to these tables, ASEB arising from the answers of Turkish and American Ph.D candidates are categorized as "weak, slightly weak, moderately adequate, strong and very strong."

### **3.1. Goals of Turkish and American Ph.D Candidates to Attend a Ph.D Program**

Before asking questions directly related to academic self-efficacy of the students, first “What was your goal to attend a Ph.D program?” question was addressed in order to understand American and Turkish Ph.D candidates better. As a result of the content analysis conducted, it has been determined that answers from either student groups are pretty close in terms of both content and number of the answers created, and the answers were gathered under 5 identical categories. It has been determined that Turkish Ph.D candidates have 38 and American Ph.D candidates have 31 expressions of purpose regarding the first question. More importantly, several differences have been observed in category sequence of both groups depending on number of the answers. Thus, categories formed by the answers of Turkish Ph.D candidates are career (f=14), personal development (f=9), social benefit (f=7), obligation (f=5) and personal interests and competences (f=3) by frequency, respectively. As for categories of American Ph.D candidates, it has been determined that they are career (f=18), personal interests and competences (f=5), personal development (f=3), obligation (f=3) and social benefit (f=2), respectively. As understood from the analyses, the most important ultimate goal of the students to attend a Ph.D program is career. Turkish students talked about mostly building an academic career, being an academician, going on, being a scientist, being a teacher at university, being a professor, etc. in this category (T-m1, T-f2, T-f3, T-m3, T-m4, T-m5, T-m8, T-m9, T-m10, T-m11, T-m12, & T-m13). In addition, according to their expressions, one student attended a Ph.D program in order to have a title of Doctor that is considerably creditable (T-m5), goal of another student is to become a specialist in the relevant sector and improve his/her career (T-m2). When examining answers of American students in career category, it has been observed that their expressions are mostly career-wise in general such as having a better career, finding an interactive career opportunity, enhancing the professional career, having a better job and salary, getting more professional opportunities (A-m1, A-f1, A-m2, A-f2, A-m4, A-f4, A-m5, A-m7, & A-m9). Again in the same category, expressions concerning academic career have been determined as being a teacher at university, being a lecturer, being an academician, being a professor, being a researcher and scientist (A-f2, A-f1, A-m8, A-m11, & A-m12). Besides, one student’s goal is to become a Doctor (A-m5) and another one’s is to become a better lecturer (A-m3) while two students’ goals were to reach a better grade (A-m4 & A-m7). Another important matter attracting importance in this category is that 14 Turkish students and 5 American students have goals in a Ph.D program especially for academic career and being an academician. However, 9 American students and only 1 Turkish student mentioned a common career goal such as improving in their current jobs or finding a better job. It is considered that the reason Turkish students emphasized on academic career so much is that most of the participants work as research assistant at the university where they attend a Ph.D program and also may be economic differences in either countries.

When examining answers of Turkish students for the category of personal development, it is observed that they are mostly in 2 groups. Hence, it is observed that Turkish students focus on certain goals such as personal improvement, reaching personal development, enhance the weaknesses and strengths (T-f2, T-f3, T-m4, T-m9, & T-m13) in the first group while they attach importance to the goals in dominating the field and enhancing intellectual knowledge of the field in the second group (T-f2, T-m2, T-m7, & T-m9). As for American students, they have similar goals in the category of personal development such as gaining more experience in the field, reaching a deeper level of knowledge (A-m4 & A-m5), improving himself/herself in professional manner and enhancing the study skills (A-m3).

When examining category of social benefit, it has been observed that goals of Turkish students in a Ph.D program indicate certain goals at national and universal level such as serving his country, raising successful generations, producing something useful for mankind, contributing to science (T-f3, T-m3, T-m5, T-m6, & T-m10). As for American students, they suggested some expressions in the category of social benefit such as creating useful things for the benefit of individuals and society (A-m10) and offering solutions by studying on application problems encountered in teaching (A-m6). Students’ answers in the category of social benefit demonstrate that Turkish students attach more importance to become useful in the society where they live in and whole mankind. This finding may derive from the fact that the western societies have a more individualistic and pragmatist understanding compared to the eastern societies.

In the obligation category, four Turkish students stated that they have obliged to attend a Ph.D program in order not to lose their job as they are research assistants (T-m6, T-m7, T-m12, & T-m13). Another student stated that he needs the title of Doctor in order to put some project ideas into practice and get some supports

and thus he is obliged to attend a Ph.D program (T-m6). As for American students, they stated that it is an obligatory to satisfy the conditions in order to have an advantage in applications for grant and financing of the projects (A-m5) and work at a university (A-f4) and therefore they attend a Ph.D program.

Finally, Turkish students mostly emphasize on certain views in the category of personal interests and competences such as having tendency to academic studies, having interest in academic issues and being pleased with conducting academic performances (T-f2 & T-m8). As for goals of American students in a Ph.D program within the scope of the mentioned category, it has been demonstrated that there are certain determinant factors such as being happy to work in a field of interest, having a demand in personal learning and development and also a desire for education and being a educator (A-f2, A-f3, A-m9, & A-m10). Answers of certain students are as the following:

*"My goal is to make an academic career. I did a master's degree after undergraduate study. During the graduate program, I figured out I have a tendency to academic studies and I love doing it. Then I decided to attend a Ph.D program." T-m8*

*"Ph.D program is an important milestone in education life of an individual because anybody who completes this period will have proved that he attained his majority in academic manner and he could give education. Indeed, my purpose to attend a Ph.D program is to crown my education life continuing for long years with this important milestone and to make a contribution to my nation and country by making progress in my academic career and raise a successful and beneficial generation for the future." T-m5*

*"I decided to pursue a Ph.D in education for two reasons: 1) To personally develop my skill as a researcher and scholar, and 2) To professionally develop myself so as to be a better teacher and educator. I chose Penn State's College of Education since their 'Language, Culture, and Society' program allows lots of space for interdisciplinary work and research." A-m3*

*"I desired to learn more and earn a PhD so that I could pursue a career in international conservation of rivers. Although I do not love research, I saw the need for gaining further expertise and that I would most likely be unsuccessful for applying for grants and funding if I did not have a PhD." A-m5*

### 3.2. ASEB of Turkish and American Ph.D Candidates in Understanding and Using the Terminology Related to Their Fields

Table 1 illustrates an overall situation arising from students' answers in this respect:

**Table 1.** ASEB of the students in understanding and using the relevant terminology

Students	Weak	Slightly weak	Moderately adequate	Strong	Very strong
Turkish	2	-	2	11	1
American	3	-	2	8	3

When examining opinions of Turkish and American students on understanding and using the relevant terminology in general, it is found that ASEB of the students is adequate above average and they are similar in this manner.

Two of Turkish students evaluated in weak category for understanding and using the relevant terminology stated that they felt themselves weak and inadequate especially because of the fact that their field is multidisciplinary and wide in general. In addition, they stated they feel adequate directly in studying for Ph.D dissertation, namely their specific fields (T-m10 & T-m11). One Turkish student, who studies on history of Medieval Catholic Church, expressed that he could understand the relevant historical religious terminology of Greek and Latin origin but he had difficulties in putting them on paper because we can't always find appropriate terms in Turkish (T-m9).

As for American students, it has been determined that some students who attend a Ph.D program especially in different fields from their field of undergraduate and graduate (A-m11) and who attend a Ph.D program in multidisciplinary fields (A-m12) could have some difficulties in understanding and using the terminology

related to their field of doctorate as a matter of course and they feel inadequate in this respect. One American student stated that he/she has no difficulty in reading and understanding the relevant terminology and feels adequate but he/she feels inadequate to use the relevant terminology in academic articles because of being inexperienced (A-m7). Similarly, another American student stated that his mates who study on the same field use terminology during the scientific conversations more than him and thus he should make some effort to improve himself more in this respect even though he is good at reading and understanding (A-f4). Some quotations from students' answers are as the following:

*"I find myself adequate in understanding and using the terminology related to my field. However, I know I should read more and write more and I should research more."* T-m1

*"I think I have a full knowledge of the terminology used in history and medieval history. However, since historical religious terms and terminology for Catholic Church, my field of specialization, are of Christian (Greek and Latin) origin, this religious terminology can be transferred hardly into Turkish. Despite that fact that I can understand and comprehend meaning of this religious terminology in its original language, I have considerable difficulties in translating these terms into Turkish. Likewise, these religious concepts can't be translated into Turkish completely and unfortunately there is no study on a theological vocabulary regarding these terms..."* T-m9

*"I have learned many terms that are specific to the field of children's literature, as well as many that relate to qualitative research. I consider myself to be fairly proficient at using these terms. There are always new terms with which I am unfamiliar ... it took a while to be comfortable with asking when something new was used."* A-f1

*"I think I use and understand the terminology in my field very well. I would like to continue to learn to use and understand theoretical terminology...which is still growing for me and to understand and synthesize the subtleties of the various ways different scholars apply certain terms ... "visual culture" for example, or "teacher assessment"...both unpack large discourses in the field with overlapping and varied components, but overall I feel quite confident."* A-f2

### 3.3. ASEB of Turkish and American Ph.D Candidates in Making a Literature Review and Reaching the Required References by Using Different Databases

Table 2 illustrates an overall situation arising from students' answers in this respect:

**Table 2.** ASEB beliefs of the students in a literature review and reaching the references

Students	Weak	Slightly weak	Moderately adequate	Strong	Very strong
Turkish	-	-	2	12	2
American	-	-	3	8	5

Findings obtained from the students' opinions demonstrate that self-efficacy beliefs of both Turkish and American Ph.D candidates are adequately strong in terms of making a literature reviews and reaching the relevant literature by using different databases. The vast majority of the students in either group expressed similar opinions and stated that they find themselves highly adequate. None of the students feel inadequate and weak for a literature review and reaching the required references. However, two Turkish and three American students evaluated themselves as moderately adequate since they have some inadequacies to be improved. Student's answers demonstrate in general that they feel competent to make a review at library and open archive resources and to use different international online databases (A-m6, A-m7, T-m1, T-m5, T-m7, T-m8, T-m9, & T-m10). Students expressed that dissertation of graduate study (T-f2), certain graduate lessons and experiences gained at educational meetings (A-m12 & T-m3,) are effective with regards to acquire this competence. Some Turkish and American students stated that opportunities provided by their universities to access libraries and databases have a significant contribution in this respect (A-m3, A-m12, T-m1, & T-m7). Finally, one Turkish student having a strong level of academic self-efficacy explained that he could reach some articles through pirated means without any fee (T-m7). We didn't talk over this interesting

explanation because it was a different subject from purpose of our study as well as being against the code of conduct. Here are opinions of some students on this matter:

*“There are several databases I use in this respect. I think I have competence to access the resources I want. I could find the article I want to reach if it is opened to access; I know I could access it through different means if it is a paid service. Services provided by the university where I work and study are pretty useful in this respect.” T-m7*

*“... I can search on different databases. However, of course I think it could be searched within a broader scope. I always try to find a way to do it. Now I can say I’m at intermediate level. I have some inadequacies but I consider myself as intermediate level now.” T-m11*

*“I am a ‘master’ at finding things in general. Also, at Penn State we are very fortunate to have a fantastic library with committed staff, so even if I am unable to find something I can always rely on this option. I also scan literature really well for information that could be of use. It’s very rare that I read a book from cover to cover. Usually I scan the table of contents, the reference section, and the introduction, and then proceed to scan the rest of the book, chapter by chapter.” A-m3*

*“I’m very proficient at this. I know how to navigate multiple databases at a time and get almost any article or book I seek.” A-m6*

### 3.4. ASEB of Turkish and American Ph.D Candidates in Scientific Research Methods and Techniques

Table 3 illustrates an overall situation arising from students’ answers in this respect:

**Table 3.** ASEB of the students in scientific methods and techniques

Students	Weak	Slightly weak	Moderately adequate	Strong	Very strong
Turkish	6	3	-	7	-
American	5	1	-	9	1

As is known, to choose and use the methodology properly in a scientific study directly affect the findings to be obtained. It is thus pretty important if the researchers have full knowledge of scientific methods and techniques. It has been determined by the findings obtained from this study that Turkish students have weak ASEB in having full knowledge of scientific research methods and techniques and American students have intermediate knowledge in general. In other words, self-confidence of American Ph.D candidates in scientific research methods is slightly better than Turkish Ph.D candidates. Nine of Turkish students and six of American students stated that they are considerably lack of scientific research methods and techniques and have significant difficulties in this respect. The candidates in question have been evaluated in the category of “weak and moderately adequate”. Students especially who find themselves adequate in one of the qualitative and quantitative scientific research methods and inadequate in another one are included in “moderately adequate” category. Three Turkish students stated that they have full knowledge of research methods they have used in their only dissertations and articles but they are inexperienced in using any other important methods and techniques due to the fact that this field is pretty wide (T-m5, T-m6, & T-m7). Two students stated that one or several are used mostly in their field of study and so they don’t use any other research methods and techniques because they don’t need (T-m5 & T-m9). In this context, one student having a lower level of self-efficacy perception has attributed it that he didn’t take any lesson on methods during undergraduate and graduate periods and he criticized his supervisors owing to the fact that they didn’t provide any guidance in this respect (T-m9). Another student indicated that he took lessons on method during the graduate study, but especially lessons on quantitative research methods were not productive and thus he tried to correct my deficiencies through individual studies, but he didn’t succeed somehow (T-m12). Two Turkish students having a lower level of self-efficacy perception stated that they forget certain methods and techniques over the time since they are not reviewed or used for a long time (T-m6 & T-m7), another student indicated that he had theoretical knowledge of certain research methods, but he had confidence issues since he has never used them in practice in any academic study (T-m7). Three American students having deficiencies in this respect stated that they are inexperienced in several research

methods and so they need to be more experienced (A-f1, A-m6, & A-m7). One American student indicated that he has hesitations on methodology of his dissertation and needs some help. Another American student stated that he doesn't rely on quantitative methods in social studies even though he does well in qualitative methods; he hasn't improved himself in quantitative methods since he doesn't enjoy using them in his academic studies and thus he is weak in this respect (A-m3).

Three of Turkish and American students who have a high level of ASEB in research methods attribute it to contribution of graduate lessons (A-m12, T-m8, & T-m3), two of them attribute it to reading and searching more (T-m8) and one attributes it that the Ph.D program he attended was concerned with scientific research methods and statistics (A-m12), one attributes it to the experience gained during master's thesis (T-f2), one attributes it to positive feedbacks from the people around him and his personal interest in methodology (T-m13). Here are some opinions of Turkish and American Ph.D candidates:

*"I sometimes think that I have deficiencies in this respect. We may forget what we learned previously over the time. For that reason, I try to correct my deficiencies by revising or asking for information from experienced ones. Of course I have comprehensive knowledge of certain parts. I have to know methods and techniques of the study I work on. I can thus say that I have full knowledge on these issues. However, I find myself inadequate in practice in several methods and techniques on which I have never make a study and I have only theoretical knowledge."* T-m7

*"I find myself highly inadequate in methods and techniques. We usually use document analysis (qualitative) since I work in the field of history. Despite the fact that I have had knowledge of document analysis on my own, I feel lack of having a method lesson during my academic education period (this lesson wasn't involved in any grade). I think my supervisors play a role in this deficiency since they didn't inform me on the idea that I would need this lesson one day, even it should not be an excuse for not learning from any other resources."* T-m9

*"I would say I'm an advanced student at using the qualitative, ethnographic methods of my research area/field. Though I think there is a much bigger gap/jump that has to happen for me to consider myself "expert"...the jump from intermediate/competent to advanced was much shorter."* A-f2

*"Again, as a qualitative researcher, hard science paradigms don't necessarily apply to the methods I use. I'm definitely still a novice at these methods, including narrative research, case study research, and using ethnographic methods. I would like to learn more about phenomenology and discourse analysis as I move forward as a researcher."* A-m6

### 3.5. ASEB of Turkish and American Ph.D Candidates in Qualitative and Quantitative Data Analysis Techniques

Table 4 illustrates an overall situation arising from students' answers in this respect:

**Table 4.** ASEB of the students in qualitative and quantitative data analysis techniques

Students	Weak	Slightly weak	Moderately adequate	Strong	Very strong
Turkish	4	9	1	1	1
American	1	5	1	4	5

It is determined by to the findings obtained from this study that Turkish students have a lower level of ASEB in having a full knowledge of qualitative and quantitative data analysis methods, but it is moderately adequate for American students in general. In other words, American Ph.D candidates have a higher level of self-confidence in having a comprehensive knowledge of qualitative and quantitative data analysis methods compared to Turkish candidates. Thirteen of Turkish students and six of American students stated that they have considerable deficiencies in this respect and important difficulties in this sense. Nine of Turkish students stated they feel adequate only in qualitative or quantitative data analyses (T-f2, T-m3, T-m4, T-m5, T-m6, T-m9, T-m10, T-m11, & T-m12) while four of them find themselves inadequate in both qualitative and quantitative data analyses (T-f1, T-m2, T-f3, & T-m9). In the study, those who are regarded as adequate in one approach of two essential analysis approach and as inadequate in another approach are involved in the

group of moderately adequate. Hence, seven of nine Turkish students evaluated in the group of moderately adequate (T-m3, T-m4, T-m5, T-m6, T-m8, T-m11, & T-m12) stated that they are adequate in qualitative analyses and two of them (T-f2 & T-m10) are adequate in quantitative analyses. Five of American students are evaluated in the group of moderately adequate and it is determined that four of these students are adequate in qualitative analyses but inadequate in quantitative analyses; another one is adequate in quantitative analyses but inadequate in qualitative analyses. Therefore, findings demonstrate that American and particularly Turkish Ph.D candidates have much more significant deficiencies in qualitative analyses and statistics than the quantitative ones. Turkish students attribute the reason why they are inadequate that some statistical and SPSS lessons they took especially during graduate period were not productive (T-m3) and quantitative statistics could be forgotten if not used for a long time (T-m7). Two each Turkish and American student stated they are inadequate in analyzing quantitative data because of the field of study (A-m1, A-m8, T-m5, & T-m9). In addition, two Turkish students and one American student stated that they got help with statistical analyses or felt to need to be approved by a specialist (A-m6, T-m11, & T-m12) and three different students stated that they need to improve themselves immediately in this respect (A-m2, T-f3, & T-m7). One Turkish student stated he knows how he can use the values obtained when he conducts some quantitative analyses, but he is not able to comprehend the statistical model underlying the analysis conducted or how the emerging values are created (T-m8). Another American student working in the educational field stated that training should be qualitative as it is concerned with people; numbers not count for much at all for him and thus he is inadequate in quantitative analyses which he couldn't adopt at all (A-m3).

Number of American students who stated a higher level of academic self-efficacy in terms of data analyses is higher compared to the number of Turkish students. Only one Turkish student regards himself as highly adequate in this sense compared to five American students. Two of American students in this group attributed their advanced level in data analysis to their field of doctorate. One of these students stated field of doctorate is closely associated with developing and interpreting statistical models (A-m5) and another one attributed it to assessment and statistics in education (A-m12). In addition, another American student indicated that she worked as data analyst previously and thus she has been pretty experienced in practice in statistical data analysis (A-f1). Only one student indicated that he feels highly adequate in both of the qualitative and quantitative analyses and even he always helps other people (T-m1). Some students' opinions on this subject are in the following:

*"I can't say I have much difficulty in analyzing qualitative data. I can reach what I look for by hand and also via PC. On the other hand, I may have difficulty in quantitative analysis. I don't know the underlying statistical model even though I could conduct an analysis via PC. I know for what purpose anything is used, but I don't know how it is created."* T-m8

*"I can say I'm doing well in interpreting the qualitative data, but I guess I'm a bit inadequate in interpreting quantitative data. The reason is that lesson about SPSS I took during the graduate study was very useless and insufficient. Moreover, I think I couldn't improve myself in analyzing quantitative data since my studies have been qualitative studies so far."* T-m3

*"Most of my PhD has involved developing statistical models and interpreting results, and I am confident that I can do this very well now. Before my PhD, I was nowhere near as skilled at analyzing data as I am now."* A-m5

*"For quantitative, I'd say I need a lot of help. I know how to run regressions and do basic t-value and p-value analyses, but not much else. I know how to use quantitative soft wares to input data and run regressions. For qualitative, I feel far more confident, particularly in using grounded theory analysis, open coding, emergent coding, and narrative forms of analysis."* A-m6

#### 4. Result and Discussion

Here are the results obtained from this study in which ASEB of Turkish and American Ph.D candidates are compared in some respects:

Goals of both Turkish and American Ph.D candidates are similar in general and they are mostly career-wise. Phillips & Russell (1994) revealed that there is a strong relationship between self-efficacy and research

efficiency and setting career goals as a result of their experimental study with psychology graduate students. This means that self-efficacy affects career prospects (Khan & Scott, 1997). From this point of view, it can be concluded that the self-efficacy beliefs of both participant groups are generally high. However, it has been determined that Turkish students focus on mostly academic career while American students want to extend range of job and take an opportunity of a better job and salary as well as academic career. It is considered it may result from the fact that most of Turkish participants have become research assistant at the university where they have attended a Ph.D program and that economic conditions are different in two countries. It was conducted by Fitzgerald & Osipow (1988) in a research that supports the low level of academic career goals of American students. According to this research, only one of the four students in the field of psychological counseling is considering an academic career. In addition, it is observed that students in both groups have certain goals such as personal development, interests and competences, several obligations and being beneficial to the society even though order of their preferences is not the same. These statements of the students encourage the findings obtained by Aslan (2010) in his study conducted with graduate students in Turkey. Similarly, it is demonstrated in the study conducted by Solem, Kollasch & Lee (2012) that undergraduate and graduate students in the USA mostly focus on a career development, and students' concerns about employment, efforts to find academic opportunities and desire to acquire a reputation are several effective factors on graduate study.

It is determined that both Turkish and American students are similar in terms of ASEB in understanding and using the relevant terminology and they show similarities in this respect. It has been determined in both student groups that ASEB of the students especially who study for multidisciplinary fields are relatively weak. According to the findings obtained from this study, students have a higher level of self-efficacy belief in understanding and using the relevant terminology compared to the findings from Aslan (2010).

It is determined that both Turkish and American Ph.D candidates have similar opinions on making a literature review and accessing the relevant literature by using different databases and that they have a high level of ASEB in this respect. It is found that process of master's thesis and experience gained in certain graduate lessons has influence on this competence and that they take the advantage of certain opportunities provided by the universities they study in, for example access to the library and databases. These results comply with the findings obtained by Aslan (2010). The library syllabuses provided for the students at academic institutions in North America may have a positive influence on American students who have a high level of self-efficacy in this sense. Blummer (2009) conducted a study on the library education offered to the graduate students who study in various universities in North America, and he suggested that library skill training, information literacy and efforts to give a bibliographical education have been presented systematically from late 1950's to present day.

It has been determined that level of ASEB varies by either groups of the students concerning a full knowledge of scientific research methods and techniques. It has been determined by the results obtained that ASEB of Turkish students are weak and of American students are not very strong, but it is moderately adequate in general. It is demonstrated that Turkish students have a lower level of ASEB in this respect for the reason that they use certain methods by their field, there are many scientific methods they have never used in their studies and method lessons have not been effective during the Ph.D program. The results obtained on scientific research methods and techniques comply with the findings obtained by Aslan (2010). It was also demonstrated by Aslan (2010) that graduate students in Turkey have a rather lower level of academic self-efficacy perception in this sense. It is considerable because of the fact that no significant change has been observed in this respect in Turkey in the course of time.

It is determined that level of ASEB is different in both student groups in terms of having full knowledge of qualitative and quantitative data analysis techniques. Such in scientific research methods and techniques, ASEB of Turkish students are weak in qualitative and quantitative data analysis and of American students are not very strong, but it is moderately adequate in general. Another important result obtained in this respect is that both American and especially Turkish students are inadequate in quantitative analyses and statistics compared to qualitative ones. According to students' opinions, it is likely to result from the fact that lessons associated with statistics and SPSS are not productive at graduate education and that it is hard to remember quantitative statistics when they haven't been used for a while. Some findings obtained by Aslan (2010) that undergraduate students in Turkey find themselves inadequate and they have a lack of self-



confidence comply with also results obtained by this study. In fact, Turkey falls behind OECD countries regarding some competences such as ability to read illustrations such as tables and graphics in the exams like PISA and TIMSS, and to conduct several statistical processes and interpret them. Thus, it is suggested it is required to figure out at earlier ages why Turkish students have difficulty in the mentioned quantitative and qualitative analyses and why they have a weak self-efficacy belief.

In short, it has been determined by the results obtained in general that Turkish and American Ph.D candidates have a high level of ASEB in understanding the relevant terminology and making a literature review. In addition, it is determined that ASEB of Turkish Ph.D candidates is weaker in modeling an academic study by scientific methods and techniques and using statistical analyses compared to American Ph.D candidates.

ASEB of Ph.D candidates in two different cultures (Turkey and the USA) are compared in this study and some similar and some different results are obtained from two participant groups in general. It is observed that self-efficacy beliefs of Turkish students are rather weaker in some respects. This result complies with some results of the studies in which participants from different cultures are compared. It is emphasized by several studies in the literature that self-efficacy may have a different meaning between the cultures. Scholz, Doña, Sud & Schwarzer (2002), for example, examined the obtained results for 19.120 participants from 25 countries and demonstrated that participants from eastern countries where a collective culture rules over in general have relatively weak self-efficacy. Kim & Park (2006) suggested that American students grown in an individualist environment sense their competences as stronger although they show lower success in math and science compared to the students in Eastern Asia where collectivism is emphasized. Lee (2009) determined as a result of his study that participants from collective cultures such as Japan and Korea have a lower self-efficacy in math although they get high marks in math exams. Even though there are several findings in the literature which support results of the study, it is quite difficult to say if cultural understanding has a direct effect in the study. Hence, we need further comprehensive studies.

It may be considered as positive, especially for Turkish students that ASEB of both Ph.D candidates who attend a Ph.D program at prominent universities in the USA and the world such as Pennsylvania State University and William & Marry University and of Ph.D candidates in Turkey is strong and shows similarity in general. However, Turkish students in particular and higher education institutions and organizations have to take necessary measures in this respect due to the deficiencies detected in research methodology and data analysis. It is found from this point that it is a considerably appropriate decision to teach scientific research methods and techniques as a compulsory subject for graduate study at institutes of the universities in Turkey. However, it is clear that quality of the education should be enhanced for the lesson in question. Statistics, research methods, qualitative and quantitative analysis techniques should be taught in particular as more productive and free courses for undergraduate and graduate students in order to correct the current deficiencies which are extant according to the results of study. For Unrau & Beck (2004), however, research methods class may be effective in terms of teaching the research process and enhancing their comprehension ability and self-confidence.

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## An Examination of the Workplace and Out of Workplace Leisure Behaviors of Academic Staff\*

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### ABSTRACT

This study aimed to examine the workplace and out of workplace leisure behaviors of the academic staff according to age and academic title. The study was designed as a cross-sectional quantitative study. 229 teaching academic staff from Hatay Mustafa Kemal University participated in the research voluntarily. To obtain data, workplace and out of workplace leisure behaviors scales were used. The data was analyzed with SPSS 22 for Windows using One Way ANOVA. According to analysis results, both workplace and out of workplace leisure behaviors of the academic staff significantly changed according to age and academic title. As a conclusion this study showed that the most inlying workplace leisure activity for the participants was "activities related to non-business reading," and the most distal activity was "mental activities". On the other hand, the most inlying out of workplace leisure activity was "internet-based activities", and the most distal activity was "society based activities". Besides, these preferences differed significantly according to age and academic title.

Keywords:

Leisure, free-time, work, workplace, leisure attitude

### 1. Introduction

Concepts of work and leisure included various definitions and limitations from antiquity to present, depending on the conditions of the period in which they were experienced. These definitions and limitations; are mostly shaped by time, place, class, and gender differences (Osmanlı & Kaya, 2014; Ekinci et al., 2017; Keskin & Bayram, 2018; Ayhan et al., 2018). When we examine the concept of leisure, we can observe that leisure was issued in three different periods after the post-World War II. These periods are the Functionalist Period / Post-industrial Community Period (1945-1975), Structural Criticism Period (1975-1990), and the Post-culturalist / Post-modernist Period (1990 to present days) (Rojek, 1997).

In general, functionalist theorists (Roberts, Parker, Kelly, and Dumazedier) focused on the definition of leisure and leisure activities. According to this approach, the boundaries of work and leisure are sharply separated. However, structural criticism period theorists (Deem, Woodward, Clarke & Critcher) were not interested in the definition of leisure. Instead, they emphasized the differences and inequalities between social groups. On the other hand, post-modernist theorists (Rojek, Moorhouse & Coalter) advocated that all limitations and restrictions in the view of leisure should be removed. Besides, they highlighted diversity and mobility approaches (Özçelik, 2017). According to Henderson et al. (2004), both functionalism and structuralism were beneficial for their era. However, today, they fail to offer innovation beyond leisure research.

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According to Stebbins (2016), concepts of work and leisure are considered as opposite to each other. However, when it comes to goals and expectations, they are closely related in many ways. When a bridge is established between the concepts, the sharp boundaries become blurry. 'Workplace leisure (interstitial leisure in Stebbins, 2016) is a kind of bridge between work and leisure. Workplace leisure formally defined as the time which employees spend by short breaks (usually a few minutes) during the working time. However, informally, this is not considered as leisure by employees. Meal or coffee breaks are not part of workplace leisure officially. For instance, employees can chat, dream, solve puzzles, memorize their roles for an amateur game, and spend time with mobile phones. These are some examples of leisure behaviors in the workplace. These activities can be chosen with the aim of getting away from work stress, relaxation, or renewal. Besides, according to the leisure paradigm conceived by Neulinger (1981, 1984), workplace leisure can be positioned as a transition element in the process of achieving work-related perceived barriers to perceived freedom.

Although employees spend a third of their time at work during the day, they do not engage in work during all their working time. They need short breaks. The effects of holidays, weekends, and end-of-day activities on employee psychological well-being and work performance have significantly been proved. However, the effects of workplace leisure during the day were less emphasized (Trogakos & Hideg, 2009; Fritz et al., 2013). Recent studies showed that workplace leisure has positive effects in reducing the sense of tiredness (Trogakos & Hideg, 2009; Zacher et al., 2014; Bennett, 2015) and increase in work efficiency (Trogakos & Hideg, 2009; Zacher et al., 2014; Kim et al., 2018). Besides, workplace leisure helps to feel more fit (Zhang, 2018) and increases work attention (Mijović et al., 2015). Workplace leisure also reduces job demands (Kim et al., 2016) and increases employee engagement (Kühnel et al., 2016). Studies also showed that workplace leisure not only has positive psychological effects also has physical effects such as reducing musculoskeletal pain and damages (Galinsky et al., 2007; Van Eerd et al., 2016; Hallbeck et al., 2017; Park et al., 2017).

The positive effects of workplace leisure continue to exist at out of the workplace. According to Haworth Lewis (2005), these benefits are the development or strengthening of a desirable personality disposition (mastery, self-esteem and hardiness), time management competency, and more participation in leisure activities (particularly in physically active leisure). Endrejat et al. (2018), mentioned that no study explicitly examined the effects of leisure time spent with colleagues on employees' life satisfaction. This research gap is surprising, considering that organizations increasingly encourage employees to socialize during and after working hours, for example, through organized sports activities, team evenings, or social hubs. According to given information above in the present study, we aimed to analyze both the workplace and out of workplace leisure attitudes of the academic staff working in Hatay Mustafa Kemal University.

## **2. Method**

### **2.1. Study Design**

The study was designed as a descriptive quantitative cross-sectional study. According to this method, first, data is collected from the sampling to identify the relationships between the patterns and then generalized back to the population (Gratton & Jones, 2010).

### **2.2. Participants**

229 teaching academic staff working in Hatay Mustafa Kemal University participated in the study. The participants were chosen according to random sampling method. The only inclusion criterion was that the participant' s workplace should be located at Tayfur Ata Sökmen Campus. The participants took part in the study voluntarily. Besides, the participants were informed about the study and completed all scales within 10-15 minutes. Informed consent had been obtained from all participants before any assessments were carried out.

**Table 1.** The Distribution of the demographic information of the participants

Variable		N	%
Age	20-29	67	29.3
	30-39	99	43.2
	40-49	43	18.8
	50+	20	8.7
Marital status	Married	130	56.8
	Single	99	43.2
Academic title	Lecturer	51	22.3
	Research Assistant	108	47.2
	Faculty Member	70	30.6
Seniority	1-4 years	92	40.2
	5-9 years	60	26.2
	10-14 years	35	15.3
	15 & + years	42	18.3
Administrative duty	Yes	46	20.1
	No	183	79.9

### 2.2. Data Collection Tools

In the study, workplace and out of workplace leisure attitudes scales were used. Özçelik initially developed the scales in 2017. In his study, Özçelik developed two different scales to measure the workplace and out of workplace leisure attitudes. The first scale has four factors and 16 items which evaluate workplace leisure activities. Example items include "I read news & newspapers" (activities related to non-business reading), and "I play computer games" (internet-based activities). The second scale has for factors and 19 items which evaluate out of workplace activities. Example items include "I go to the cinema" (hangout activities), and "I go out for lunch with my family" (family-based activities). The items in both scales are anchored with a five Likert type scale from 1 (completely disagree) to 5 (completely agree) (Özçelik, 2017). In our study; internal consistency coefficients of the scales were .79 for workplace and .84 for out of workplace sub dimensions.

### 2.3. Data Analysis

SPSS 22 package program was used to analyze the data. In the analyze of the data skewness and kurtosis values were checked to determine whether the data showed a normal distribution. These values were evaluated between -1 and +1 (Büyüköztürk, 2007). As a result of this evaluation, it was seen that the data showed normal distribution. As the hypothesis test, one-way ANOVA was used at 95% confidence level, and Tukey' s Hsd test was used as the second degree test.

### 3. Results

**Table 2.** Workplace and out of workplace leisure preferences of the participants

	Variable	N	Mean	SD
Work place leisure	Activities related to non-business reading	229	2.95	.99
	Inner rest activities	229	2.28	.76
	Mental activities	229	1.51	.61
	Internet-based activities	229	2.05	.81
Out of work place leisure	Hangout activities	229	2.65	.74
	Society based activities	229	1.67	.71
	Internet-based activities	229	2.78	.81
	Family-based activities	229	2.75	.81

According to analyze results, the most inlying workplace leisure activity for the participants was "activities related to non-business reading," and the most distal activity was mental activities. On the other hand, the most inlying out of workplace leisure activity was internet-based activities, and the most distal activity was Society based activities".

**Table 3.** Work place leisure preferences of the participants according to age

Type of Work Place Leisure Activities		Age	N	Mean	SD	F	p	Tukey
Activities related to non-business reading	1	20-29	67	2.73	0.99	1.711	0.166	
	2	30-39	99	3.05	0.99			
	3	40-49	43	3.06	1.01			
	4	50+	20	3.06	0.98			
Inner rest activities	1	20-29	67	2.32	0.81	0.305	0.822	
	2	30-39	99	2.30	0.76			
	3	40-49	43	2.25	0.70			
	4	50+	20	2.15	0.75			
Mental activities	1	20-29	67	1.49	0.61	2.774	0.042	4 > 3
	2	30-39	99	1.51	0.65			
	3	40-49	43	1.40	0.45			
	4	50+	20	1.86	0.68			
Internet-based activities	1	20-29	67	2.28	0.93	4.32	0.006	1 > 3
	2	30-39	99	2.08	0.80			
	3	40-49	43	1.76	0.50			
	4	50+	20	1.84	0.84			

According to One Way Anova results, there was a significant difference in the internet-based activities factor that participants aged between 20-29 scoring higher than the participants aged between 40-49. Besides, there was a significant difference in the mental activities factor that the participants aged 50 and older scoring than the participants aged 40-49. However, there was not any significant difference in the other factors.

**Table 4.** Work place leisure preferences of the participants according to the academic title

Type of Work Place Leisure Activities		Academic title	N	Mean	SD	F	p	Tukey
Activities related to non-business reading	1	Lecturer	51	3.39	0.98	8.451	0.000	1>2
	2	Research assistant	108	2.72	1.00			
	3	Faculty member	70	3.01	0.89			
Inner rest activities	1	Lecturer	51	2.47	0.85	1.927	0.148	
	2	Research assistant	108	2.25	0.76			
	3	Faculty member	70	2.21	0.69			
Mental activities	1	Lecturer	51	1.67	0.62	3.398	0.035	1>3
	2	Research assistant	108	1.53	0.63			
	3	Faculty member	70	1.38	0.56			
Internet-based activities	1	Lecturer	51	2.25	0.89	4.449	0.013	1>3
	2	Research assistant	108	2.11	0.82			
	3	Faculty member	70	1.83	0.70			

According to one way Anova results, there were significant differences on workplace leisure preferences of the participants according to the academic title in the activities related to non-business reading factor, lecturers scoring higher than the research assistants ( $p < 0.001$ ), in the mental activities factor lecturers, scoring higher than the faculty members ( $p < 0.05$ ), and in the internet-based activities factor lecturers scoring higher than the faculty members ( $p < 0.05$ ).



**Table 5.** Out of workplace leisure preferences according to the age of the participants

Out of workplace leisure activities		Age	N	Mean	SD	F	p	Tukey
Hangout activities	1	20-29	67	2.74	0.76	2.768	0.043	1>4
	2	30-39	99	2.73	0.75			
	3	40-49	43	2.53	0.72			
	4	50+	20	2.28	0.64			
Society based activities	1	20-29	67	1.62	0.69	0.251	0.861	
	2	30-39	99	1.69	0.75			
	3	40-49	43	1.72	0.74			
	4	50+	20	1.73	0.60			
Internet-based activities	1	20-29	67	3.11	0.85	15.146	0.000	1>3 1>4
	2	30-39	99	2.86	0.73			
	3	40-49	43	2.48	0.59			
	4	50+	20	1.96	0.78			
Family-based activities	1	20-29	67	2.51	0.87	3.61	0.014	2>1
	2	30-39	99	2.89	0.81			
	3	40-49	43	2.89	0.72			
	4	50+	20	2.66	0.61			

According to one way Anova results, there were significant differences in the out of workplace leisure preferences of the participants according to age in the hangout activities, 20-29 aged participants scoring higher than the participants aged 50 or more ( $p<0.05$ ), in the internet-based activities 20-29 aged participants scoring higher than the 40-49 aged and 50 or higher aged participants ( $p<0.001$ ), and in the family-based activities 30-39 aged participants scoring higher than the 20-29 aged participants.

**Table 6.** Out of workplace leisure preferences according to the academic title of the participants

Out of workplace leisure activities		Academic title	N	Mean	SD	F	P	Tukey
Hangout activities	1	Lecturer	51	2.83	0.62	2.205	0.113	
	2	Research assistant	108	2.64	0.78			
	3	Faculty member	70	2.55	0.77			
Society based activities	1	Lecturer	51	1.89	0.82	3.304	0.039	1>3
	2	Research assistant	108	1.58	0.69			
	3	Faculty member	70	1.66	0.65			
Internet-based activities	1	Lecturer	51	2.69	0.82	9.090	0.000	2>1 2>3
	2	Research assistant	108	3.01	0.79			
	3	Faculty member	70	2.51	0.75			
Family-based activities	1	Lecturer	51	3.18	0.83	10.362	0.000	1>2 1>3
	2	Research assistant	108	2.57	0.82			
	3	Faculty member	70	2.74	0.68			

According to one way Anova results, there were significant differences in the out of workplace leisure preferences of the participants according to their academic title in the society based activities lecturers scoring higher than the faculty members ( $p<0.05$ ), in the internet-based activities research assistants, scoring higher than both the lecturers and the faculty members ( $p<0.001$ ), and in the family-based activities lecturers scoring higher than both research assistants and the faculty members ( $p<0.001$ ).

#### 4. Discussion

This study aimed to analyze the workplace and out of workplace leisure attitudes of the academic staff. According to analyzed results, it was found that the participants preferred the most activities related to nonbusiness reading as a workplace leisure activity and mental activities the less. On the other hand, they chose the most internet-based activities as out of workplace leisure activities and society based activities the less. A recent study showed that the main of the activities that the academics 'frequently' do as a leisure activity was reading books, newspapers, magazines with a rate of 45.7 % (Tel, 2014). Besides, in a more recent study Başarangil (2018) reported that 106 (44,9%) out of 236 academic staff chose reading books, newspapers, and journals as a leisure activity. Although the mentioned studies did not classify the leisure preferences of the academic staff as the workplace and out of workplace leisure, it can be said that they are compatible with the findings of the current study.

According to analyzed results, the workplace leisure attitudes of the participants showed significant differences according to age and academic title. We understand from the analyzed results that 20-29 aged academic staff chose internet-based activities more than 40-49 aged participants and 50 and older aged participants chose mental activities more than 40-49 aged participants. Lecturers chose activities related to non-business reading more than the research assistants, and internet-based & mental activities more than faculty members. There may be several reasons for these results. Participants with the age range 20-29 can be more familiar with the Internet. Furthermore, the lecturers may want to relax their minds because of excessive course load (Oruç et al., 2010). Besides, the participants may perceive more freedom or flow from a different type of activities. Prior studies showed that participating in workplace leisure activities helps to experience higher levels of positive emotions; such as increased well-being, decreased burnout, better job attitudes, higher job performance, focus on the job and lower levels of negative emotions (Westman & Eden, 1997; Sonnentag, 2003; Trougakos et al., 2008; Yang et al., 2010; Mokoya and Gitari, 2012; Aykan ve Özçelik, 2020).

Analyzed results also showed that out of workplace leisure attitudes of the academic staff showed significant differences according to age and academic title. We understand from the analyzed results that the academic staff age between 20-29 chose to hang out activities more than 50 and more aged participants. Besides, they also chose internet-based activities more than 40-49 aged participants. On the other hand, 30-39 aged participants chose family-based activities more than 20-29 aged academic staff. According to analyzed results, it was also found that lecturers chose family-based and community-based activities. However, research assistants chose internet-based activities. When we examine the literature, we can see that out of workplace leisure participation changes with age, as people getting old, their choices of leisure activities become noticeably different (Mota & Esculcas, 2002).

#### 4. Conclusion

The present research showed that both the workplace and out of workplace leisure attitudes of the academic staff showed differences according to age and academic title. Different types of leisure preferences can be explained with an individual's willingness to potential leisure participation (Mannell & Kleiber, 1997). Furthermore, according to Walker and Wang (2008), leisure attitude reflects the intrinsic motivation of individuals and can predict actual engagement in leisure activities. In conclusion, we can say that different intrinsic motivations play a role in the workplace and out of workplace leisure participation of the academic staff. Therefore, internalization of the work place and out of work place leisure attitudes of the academic staff may help them to overcome work stress empower their willingness. Besides, due to the limited number of studies in the literature, it is important to carry out future studies on the subject to have a better understanding of the phenomenon.

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## Schools' Emphasis on Academic Success in TIMSS 2015 across Finland, Singapore, and Turkey\*

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### ABSTRACT

School climate which is strongly related with the students' outcomes includes some of the components, among which disciplinary climate in schools was expressed as the dominant one. Safety and order in schools which is strongly related with the physical and emotional security stated as one of the indicator of disciplinary climate in schools. In disciplined schools, more opportunities are found to focus on learning and teaching. So, in these schools, there is a tendency of placing the academic success to the priority. In addition, allocating time to emphasizing on academic success is strongly related with having teaching time that is not interrupted by the basic needs of the students. Moreover, academic pressure which reflect the schools' emphasis on academic success have been discussed in recent studies with its advantages and disadvantages. In this study, the association of safety, order and disciplined issues, limitation of teaching by students' needs, academic pressure, teachers' gender and education level with the schools' emphasis on academic success was investigated by scrutinizing the 4th grade teachers' responses in TIMSS 2015 for three different countries, Finland, Singapore, and Turkey, respectively. Multiple logistic regression was run to analyze the data. The results revealed that schools' emphasis on academic success varies across three countries after controlling aforementioned variables. In addition, the estimated odds ratio for the explanatory variable of "safe, orderly and disciplined school" has the highest value among the explanatory variables for the three countries.

#### Keywords:

School emphasis on academic success, safe and orderly schools, TIMSS 2015, multiple logistic regression

### 1. Introduction

A very well-known fact was revealed by the famous Coleman's report (1966) as the great variance in students' achievement related with the students' background characteristics. The remaining relatively little variance have attracted many researchers interest in the educational research. Undoubtedly, the variables within the control of schools that effect students' performances have been one of the focal point of many researchers (Creemers & Kyriakides, 2010, Hoy, Tarter & Woolfolk Hoy, 2006). One of the issues that positively influence on students' learning outcomes was expressed as the school ambition for the academic success.

The concept of "academic optimism" have been emphasized with its significant contribution on students' achievement in the recent research and includes parents, teachers, and students' priority and ambition for the academic success (Gustafsson & Nilsen, 2016). In addition, some of the studies cover school collective trust, efficacy, and performance emphasis to indicate schools' emphasis on academic success (Hoy, Tarter & Woolfolk Hoy, 2006). When mentioning the schools' emphasis on academic success, the importance of the

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collective efficacy was expressed (Hoy et al., 2006). Bandura defined the collective efficacy as “the performance capability of a social system as a whole” (Bandura, 1997, p.469). Based on this definition, Lezotte (2001) presented one of the characteristics of effective schools as having high expectations that lead students to obtain mastery of the school’s essential curriculum by the belief and persuasion of the school staff.

School emphasis on academic success has been expressed by being one of the components of school climate which has also robust correlation with students’ motivation (Scherer & Nilsen, 2016). Moreover, significant relationships have been found between school emphasis on academic success and students’ performances in both science and mathematics achievement tests across all countries involved in TIMSS 2011 (Mullis et al. 2012; Nilsen & Gustafsson 2014). On the other hand, since highly competitive learning environments are created by the influence of exaggerated emphasis on academic success, significant decrease in students’ motivation and self-beliefs was detected in some studies (Chen & Vazsonyi 2013). Although lots of the studies have expressed the influences of school emphasis on academic success on students’ achievement and motivation (Martin et al., 2013), few studies have been conducted to reveal the factors that affect school emphasizes on academic success.

School climate includes other building blocks except performance-oriented related aspects. One of the components that effect school climate is related to the safety, order, and discipline issues of schools. Safety and order in schools was described by including physical and emotional security which is strongly associated with an orderly disciplinary climate (Gregory et al., 2012; Wang & Degol, 2015). It is very hard to mention about emphasizing academic success and allocating time and energy to the learning while dealing with the issues about safety in schools. It can be said that more opportunities are created to focus on learning and emphasizing academic success in safe and disciplined schools (Nilsen & Gustafsson, 2014). In addition, positive association between safe schools and teachers’ collective efficacy was also expressed (Sørli & Torsheim, 2011) and setting the high academic standards was mentioned as one of the characteristic of safe schools (Bucher & Manning, 2005). Moreover, the positive relationship between school safety and achievement in a primary school was also reported in some studies (Miliam et al., 2010).

As well as allocating time for promoting and place the academic success to the priority, energy and resources can be stated as some of the requirements. Therefore, teaching time should not be limited or interrupted by the basic needs of the students such as prerequisite knowledge, enough nutrition, enough sleep. As a teacher, having uninterested students, dealing with the students who have mental, emotional and psychological problems may also lead not to allocate enough time to promote emphasizing academic success. In addition, some of the studies have expressed the concept of academic pressure reflects the priority of academic success. Although some of the studies define academic pressure which entails students’ desire to do well, do homework regularly, having an orderly environment, some studies have defined this concepts as students perceptions pressure that their teachers put on them (McGuigan & Hoy, 2006; Kythreotis et al., 2010).

Beside the uninterrupted teaching time, teachers’ rich content and pedagogical knowledge also strongly related with the quality of the instruction. Although some studies expressed the positive effects of teachers’ level of education, some of the findings show inconsistency by revealing the relative contribution of teachers’ coursework, level of education, and certification on students’ achievement across subjects and grades (Goe, 2007). Instructional quality which is also related with teachers’ depth of knowledge was stated as the potential mediator between school climate and student motivation (Scherer & Nilsen, 2016). So, the investigation of the relationship between teachers’ level of education and schools’ emphasis on academic success which is an ingredient of school climate might be worth to investigate.

A very well-known international large-scale assessment, TIMSS (The Trends in International Mathematics and Science Study) covers the dimensions that was presented so far. The sixth cycle of the TIMSS which is carried out by IAE (The International Association for the Evaluation of Educational Achievement), has lastly revealed its data in 2015, gives us an opportunity to study the factors related to schools’ emphasizes on academic success. Beside the achievement tests in science and mathematics at 4<sup>th</sup> and 8<sup>th</sup> grade levels, student, teacher, and school questionnaires were also administered to gather data from different layers of the educational issues. Some of the issues that TIMSS 2015 focuses at the classroom context and school context

can be stated as: classroom instructional resources and technology, instructional time, instructional engagement, classroom assessment, school emphasis on academic success, safe, orderly, and disciplined schools (Mullis & Martin, 2013).

In the literature, although lots of the studies were conducted to reveal the relationship between schools' emphasis on academic success and students' achievement in different subject matters (Mullis et al. 2012; Nilsen and Gustafsson 2014; Scherer & Nilsen, 2016), there is not any study to reveal the factors that affect school emphasizes on academic success by comparing different countries. In addition, as the exaggeration of and undermining of school emphasis on academic success may cause a decrease on students' motivation and self-beliefs, determining the boundaries and limits of school emphasis on academic success by balancing the presence of the factors is very crucial. Also, understanding whether contribution of these factors to the schools' emphasis on academic success varies across the countries is expected to contribute to the literature. In this study, we also examine schools' emphasis on academic success and the potential factors that is expected to be correlated with this dimension based on the views of teachers. Being the driving force of the instructional quality, teachers' perceptions about these dimensions are very crucial. Therefore, in this study, the association of schools' emphasis on academic success with the schools' safe, order, and discipline issues, students' need that limiting teaching, academic pressure that exposed to the students in school, and teacher education level was investigated at primary schools in three different countries, Finland, Turkey, and Singapore, respectively.

### **Research Aim and Questions**

The association of teachers' views on school conditions with the schools' emphasis on academic success in three different countries, Finland, Turkey, and Singapore, was examined by scrutinizing TIMSS 2015 data at fourth grade level. The similarities and discrepancies among the countries were revealed based on the related topic. With respect to this aim, we can state research questions more specifically as follows:

1. Does the schools' emphasizes on academic success show variations across three countries, Finland, Turkey, and Singapore, after controlling the safe, order and discipline issues in schools, students' needs that limited teaching, academic pressure on students, gender of teachers, and teachers' education level?
2. Do safe, orderly, and disciplined schools, students' needs that limited teaching, academic pressure on students, gender of teachers, and teachers' education level have an effect on the schools' emphasis on academic success in Turkey, Singapore, and Finland?

## **2. Method**

In this section, first, the nature of The TIMSS 2015 data and the sample of the study were handled. Second, the response and explanatory variables of study which are schools' emphasis on academic success, safe, order and discipline issues, students' need that limited teaching, academic pressure on students, gender of teachers, and teachers' education level are discussed. Finally, statistical analysis and results are presented.

### **2.1. TIMSS 2015 Instruments, Data and Sampling**

TIMSS 2015 allows us to study not only the responses gathered from the students, but also present the responses of teachers and school administrators. In this study, we focused on the 4<sup>th</sup> grade teachers' views which were grabbed with the responses of teacher questionnaire. Some of the issues that TIMSS focuses with teacher questionnaire related to our study can be stated as instruction effected by shortages, school emphasis on academic success, and issues on safe, orderly, and disciplined schools, teachers education level and the number of assigned homework to the students (Mullis & Martin, 2013).

In TIMSS 2015, a stratified two-staged cluster sampling design, in which the first stage covers the sampling of the schools with the proportional size and have the eligible students and the second stage consist of the selection of intact classes from the target grade, was applied for selection of the sample in each countries. The teachers who included in TIMSS 2015 are teachers of classes determined in the second stage (LaRoche, Joncas & Foy, 2016). 57 countries from all over the world participated TIMSS 2015. More than 20.000 teachers were surveyed at fourth grade level.

In this study, we carried out our study based on three different countries, Turkey, Singapore, and Finland. Comparing three countries in international large-scale assessment studies regarding the performances of students, it was revealed that whereas Finland and Singapore are among the high performing countries, Turkey have been ranked among the countries which have the average scores under the TIMSS International average. For instance, the average science scores of countries at fourth grade level in TIMSS 2015 in Finland, Singapore, and Turkey, 554, 590, and 487, respectively. At fourth grade level, while Singapore has the highest average score in TIMSS 2015 in both science and mathematics among the East Asian countries and also in the world, Finland has the highest average score in TIMSS 2015 in both science and mathematics among the European countries. On the other hand, Turkey has performed below the TIMSS average in both science and mathematics at fourth grade level (Mullis, Martin, Foy & Hooper, 2016). Similarly, in PISA 2018 (Programme for International Student Assessment), the three countries performances are similar as in the TIMSS in reading literacy, science literacy, mathematics literacy (OECD, 2019). Therefore, comparing these countries enable us to examine not only the similarities and differences of between two top achiever countries located different part of the world, but also reveal the discrepancies between high performing countries and a low performing country based on the aims of this study.

The total number of the teachers included in this study from three different countries is 1263 (Finland = 461, Singapore = 551, and Turkey = 251). The distribution of demographic variables on each of three countries show some similarities. Most of the teachers are female in Finland and Singapore, 78% and 73%, respectively. In Turkey, the percentage of female teachers is 57%. The other demographic variable which is related to this study is the education level of the teachers. In Singapore and Turkey, most teachers do not have a master or PhD degree, 89% and 96%, respectively. Reversely, the percentage of teachers who have master and PhD degree is %84 in Finland.

## 2.2. Variables of the Study

In TIMSS 2015, teacher questionnaire included items related to teachers' instructional practices in classrooms, students' needs that limited teaching, teachers' views on schools' emphasis on academic success, and discipline issues. The items in the TIMSS questionnaires were chosen that can be combined a determined single underlying latent construct. Item Response Theory (IRT) scaling methods was used, specifically the Rasch partial credit model, to produce the scales scores for underlying latent construct. Based on the mean scores of all TIMSS countries and standard deviation across all countries, the unit of the scale was determined for latent constructs (Martin, Mullis & Hooper, 2016). Therefore, in TIMSS 2015 database, scales scores of latent constructs are also available both as a scale score (continuous) and as an index (categorical) formats. In this study, the index (categorical) variables were used for the latent constructs to create response and explanatory variables of this study.

### 2.2.1. Response Variable

The school emphasis on academic success latent construct scale and index scores were produced based on the responses of teachers to the fourteen items. TIMSS 2015 teacher questionnaire presented these items after asking "how would you characterize each of the following within your school?". The items presented as: Teachers' understanding of the school's curricular goals (1), Teachers' degree of success in implementing the school's curriculum (2), Teachers' expectations for student achievement (3), Teachers working together to improve student achievement (4), Teachers' ability to inspire students (5), Parental involvement in school activities (6), Parental commitment to ensure that students are ready to learn (7), Parental expectations for student achievement (8), Parental support for student achievement (9), Parental pressure for the school to maintain high academic standards (10), Students' desire to do well in school (11), Students' ability to reach school's academic goals (12), Students' respect for classmates who excel in school (13), Collaboration between school leadership and teachers to plan instruction (14).

The response options were given as "very high", "high", "medium", "low", and "very low". Based on the combination of these items, the scale score of the latent construct was produced. The index score of this latent construct were categorized with the usage of IRT scaling methods (mentioned above) based on the scale score. The index score of the latent construct was categorized as: "very high emphasis", "high emphasis", and "medium emphasis". The Cronbach's alpha coefficients were found for Turkey, Finland, and Singapore as 0,90, 0,85, and 0,90, respectively, which indicate satisfactory reliability. Then, the index variable



was recoded to a two-level categorical variable in which the combination of very high emphasis and high emphasis defined as “high emphasize” (1) and medium emphasis defined as “less emphasis” (0). In this way, the response (dependent) variable that could be used in logistic regression was produced.

### 2.2.2. Explanatory Variables

*Safety, orderly, and disciplined schools:* TIMSS 2015 teacher questionnaire includes items related to safety, order, and discipline issues and the latent construct named as “safety, orderly, and disciplined schools”. The items that comprises this latent variable were presented to the teachers to indicate the agreement or disagreement level as follows: This school is located in a safe neighborhood (1), I feel safe at this school (2), This school’s security policies and practices are sufficient (3), The students behave in an orderly manner (4), The students are respectful of the teachers (5), The students respect school property (6), This school has clear rules about student conduct (7), This school’s rules are enforced in a fair and consistent manner (8).

The response options were presented as “agree a lot”, “agree a little”, “disagree a little”, and “disagree a lot”. The items were used to create a scale variable and an index variable for this latent construct. The index variable of the construct has three categories which are labelled as “very safe and orderly”, “safe and orderly”, and “less than safe and orderly”. The Cronbach’s alpha coefficients were computed as 0,89 for Turkey, 0,82 for Finland, and 0,89 for Singapore. Then, the index variable was recoded as to transform “very safe and orderly” and “safe and orderly” responses to “safe and orderly schools” (1), “less than safe and orderly” responses to “not safe and orderly schools” (0). So, our first explanatory (independent) variable was produced for the norms of logistic regression.

*Teaching limited by students need:* TIMSS 2015 teacher questionnaire presented items related to students’ basic needs such as nutrition, sleep, and prerequisite knowledge that have a potential to limit the teaching in the classroom. The items that were included under this latent construct were presented to the teachers to indicate the extent of limitation of their teaching by the followings: Students’ lack of prerequisite knowledge or skills (1), Students suffering from lack of basic nutrition (2), Students suffering from not enough sleep (3), Disruptive students (4), Uninterested students (5), Students with mental, emotional, or psychological disabilities (6).

The response options were presented as “not at all”, “some”, and “a lot”. These items were used to create a scale score and an index score for this latent variable. The index variable of the latent construct has three categories and named as “not limited”, “somewhat limited”, and “very limited”. The Cronbach’s alpha coefficients were computed for Turkey, Finland, and Singapore as 0,73, 0,72, and 0,77, respectively which indicate good reliability. Then, the index variable was recoded by transforming “somewhat limited” and “very limited” to “limited” (1) and we remained the “not limited” (1) as the same.

*Homework pressure:* The instruction time can be extended by giving students homework and used to evaluate student outcomes. In some studies, it is also viewed as an indicator of academic pressure which is in turn related with the emphasis of academic success. In TIMSS 2015, teachers were asked to indicate the frequency of assigned science homework. The response options were presented as “do not assign science homework”, “less than once a week”, “1 or 2 times a week”, “3 or 4 times a week” and “everyday”. This observed variable was recoded to a two-level categorical variable by transforming do not assign science homework, less than once a week, and 1 or 2 times a week as “no homework pressure” (0) and transforming 3 or 4 times a week and everyday options as “homework pressure” (1). In this study, homework pressure was used as an indicator of academic pressure which was discussed in the last section.

*Education levels of the teachers:* We created this variable with regard to teachers who have a master and doctorate degree and who have not. Therefore, teachers who do not have a master or doctorate degree recoded as “do not have master and doctorate” (0) and teachers who graduated from master or doctorate level was labelled as “have a master or doctorate degree” (1).

### 2.3. Analyses of the Study

Multiple logistic regression was chosen to understand directly which variables effect the presence or absence of emphasis on academic success in schools. Multiple logistic regression allows us to see the probability of

given teacher's school emphasis on academic success, and the various effects of the variables on the school's emphasis on academic success.

Therefore, to understand whether the odds of a school that emphasis on academic success is same across Turkey, Finland and Singapore when controlling the variables such as safety, orderly, and disciplined schools, limitation of teaching by the students' needs, homework pressure, teachers' education level and gender of the teachers, multiple logistic regression was carried out based on the model presented as follow:

$$\Pr (Emphasis_s = 1) =$$

$$\frac{\exp (\beta_0 + \beta_1 T_t + \beta_2 F_t + \beta_3 Safe_s + \beta_4 Limited_s + \beta_5 Gender_t + \beta_6 Hwpressure_s + \beta_7 Edulevel_t)}{1 + \exp (\beta_0 + \beta_1 M_t + \beta_2 M_t + \beta_3 Safe_s + \beta_4 Limited_s + \beta_5 Gender_t + \beta_6 Hwpressure_s + \beta_7 Edulevel_t)}$$

In the equation, *Emphasis<sub>s</sub>* shows whether school *s* emphasis on academic success; *T<sub>t</sub>* and *F<sub>t</sub>* represent Turkey and Finland, respectively. In addition, *Safe<sub>s</sub>* is the safe, orderly, and disciplined issues in school *s*; *Limited<sub>s</sub>* is teaching limited by students' need in school *s*; *Hwpressure<sub>s</sub>* is the pressure of the homework given by the teacher in school *s*. On the other hand, *t* is for the teachers; *Gender<sub>t</sub>* is the gender of teacher; *Edulevel<sub>t</sub>* is the education level of teacher.

For the second research question, to understand how the odds of being a school that emphasis on academic success in Turkey, Finland, and Singapore affected by the variables related to safety, order and discipline issues in schools, , limitation of teaching by the students' needs, homework pressure, teachers education level and gender of the teachers, another multiple logistic regression was performed with regard to the model presented as follow:

$$\Pr (Emphasis_s = 1) =$$

$$\frac{\exp (\beta_0 + \beta_1 Safe_s + \beta_2 Limited_s + \beta_3 Gender_t + \beta_4 Hwpressure_s + \beta_5 Edulevel_t)}{1 + \exp (\beta_0 + \beta_1 Safe_s + \beta_2 Limited_s + \beta_3 Gender_t + \beta_4 Hwpressure_s + \beta_5 Educalevel_t)}$$

The abbreviations in the second equation are the same with the first one. The results of the all multiple logistic regression analyses are shown in the following section.

### 3. Results

Firstly, we present the results analysis regarding the first research question. The sample that was used for the research questions includes 1263 teachers (Turkey = 251, Finland = 461, and Singapore = 551). The percentage of teachers in three countries were presented with respect to gender in Table 1. This table also provide information about the number of teachers who have a master or PhD degree and who did not get master or PhD degree.

**Table 1.** Percentages of teachers with respect to gender and education level in the sample

	Turkey N = 251	Finland N = 461	Singapore N = 551	Total N = 1263
<i>Gender</i>				
Female	57,4	72,8	78,1	71,7
Male	42,6	27,2	21,9	28,3
<i>Education Level</i>				
No master or PhD	4,2	11,4	84,4	63,6
Master or PhD	95,8	88,6	15,6	36,4

The percentages of teachers who express that their school emphasis on academic success and who indicated that their school not emphasis academic success were presented in Table 2. Teachers who indicate that their school emphasis on academic success in Finland is the highest percentage (63,6%) among three countries. In Turkey, the percentages of teachers whose school emphasis and whose do no are nearly the same. In Singapore, 43,9 teachers expressed that their school emphasis on academic success

**Table 2.** School emphasis on academic success by country in % of teachers

	Turkey N = 251	Finland N = 461	Singapore N = 551	Total N = 1263
<i>Emphasis on academic success</i>				

Yes	49,8	63.6	56.1	57,6
No	50,2	36.4	43,9	42,4

It is recommended that since the logistic regression is sensitive to the multicollinearity which deals with the correlation of the independent variables to each other (should not be correlated to each other-tolerance values are less than 0.1) and correlation of independent variable to dependent variable (should be strongly correlated), the correlation matrix should be checked (Pallant, 2011). The correlation matrix was checked, and it was seen that the correlation values among independent variables did not exceed the 0.1. Before the analysis, dependent and independent variables also checked whether they have outliers.

The multiple logistic regressions revealed that school emphasis on academic success varies across Turkey, Finland, and Singapore (Table 3), after controlling the presence of the safe, order and discipline issues in schools, students' needs that limited teaching, academic pressure on students, gender of teachers, and teachers' education level ( $F(2, 1157) = 229,34, p < 0.05$ ).

**Table 3.** Odds ratios for teachers' whose school emphasis on academic success when controlling group of variables

	Model 1	Model 2	Model 3
Finland	3.54* (0.2)	3.65* (0.2)	
Turkey		1.03 (0.2)	0.28* (0.2)
Singapore	0.97 (0.1)		0.27* (0.2)
Safe	0.23* (0.1)	0.23* (0.1)	0.23* (0.1)
Limited	0.52* (0.1)	0.52* (0.1)	0.52* (0.1)
Gender	0,89 (0.1)	0.89 (0.1)	0.89 (0.1)
Hwpressure	0.71 (0.2)	0.71 (0.2)	0.71 (0.2)
Edulevel	1,87* (0.2)	1.87* (0.2)	1.87* (0.2)

\* $p < 0.05$ . Standard errors shown in parenthesis.

In the first model, when comparing the teachers views on their school's emphasis on academic success in Finland to the teachers views in Turkey, teachers in Finland have more than 3 times the odds of working in schools which emphasis academic success after controlling group of variables (95% CI from 2,17 to 5.78). Significant value was gathered for this odds ratio at 0.05 level. On the other hand, teachers who are working in Singapore has 3% smaller odds of working in a school which emphasis on academic success than teachers in Turkey. However, the estimated odds ratio is not significant at 0.05 level.

In the second model, when comparing teachers' views on their school's emphasis on academic success in Turkey to the teachers views in Singapore, a teacher whose school emphasis on academic success in Turkey has only 3% greater odds than a teacher whose school emphasis on academic success in Singapore after controlling the group of variable. The odds ratio was estimated 1.03 which was not significant. On the other hand, teachers who are working in Finland have more than 3 times the odds being in a school that academic success is emphasized comparing the teachers in Singapore (estimated OR = 3,65, 95% CI from 2,38 to 5,58).

In third model (Table 3), the adjusted odds ratio for teachers whose school emphasis on academic success, comparing to Turkey to Finland, was estimated as 0.28 (95% CI from 0.17 to 0.46), after controlling for group of variables. Significant value was gathered for this odds ratio at 0.05 level. This odds ratio means that a teacher working in Turkey has 72% smaller odds of working in a school which emphasis on academic success than a teachers in Finland after controlling for group of variables. The estimated adjusted odds ratio was found 0.27 when comparing the teachers in Singapore to the teachers in Finland (95% CI from 0.17 to

0.41), after controlling the group of variables. This odds ratio means that, a teacher in Singapore has 73% smaller odds of working in a school which emphasis on academic success than a teachers in Finland.

Secondly, for the second research question, the logistic regression analyses were run regarding to the model for countries separately. Table 4 present the estimated odds ratio for the teachers whose school emphasis academic success for three different countries.

**Table 4.** Odds ratios for the teachers whose school emphasis on academic success.

	Finland	Turkey	Singapore
Safe	5.15* (0.2)	7.38* (0.2)	2.88* (0.2)
Limited	1.49 (0.2)	5.11* (0.3)	2.06* (0.2)
Gender	1.34 (0.2)	1.16 (0.3)	0.96 (0.2)
Hwpressure	1.62 (0.2)	1.02 (0.3)	3.29* (0.3)
Edulevel	0.37* (0.2)	1.69 (0.3)	0.62 (0.3)
Intercept	1.89 (0,3)	0.29 (0.3)	0.49 (0.2)

\* $p < 0.05$ . Standard errors shown in parenthesis.

In Finland, when a teacher works in a schools that is safe, orderly and disciplined, this teacher have more than 5 times the odds of working in schools which emphasis academic success than the teachers working in not safe, orderly, and disciplined schools (OR = 5.15; 95% CI from 3.12 to 8.48). The estimated odds ratio was significant at 0.05 level. In addition, when a teacher has a master of PhD degree, such teachers has 63% lower odds viewing their schools that emphasis on academic success (OR = 0.37, 95% from 0.19 to 0.73). The estimated odds ratios of the other variables were found not significant in Finland at 0.05 level.

In Turkey, the estimated odds ratio for the explanatory variable of “safe, orderly and disciplined school” has the highest value among the countries. The odds ratio was estimated as 7.78 (95% CI from 4.1 to 13.2). Significant value was also gathered for such ratio at 0,05 level. This odds ratio means that a teacher who works a safe, orderly and disciplined schools has nearly 7,5 times the odds of working in a school which emphasis academic success than the teachers working in not safe, orderly, and disciplined schools. In addition, for Turkey, another significant odds ratio was estimated 5.15 for the explanatory variable of “teaching limited by students need”. This significant and highest odds ratio means that teachers whose teaching is not limited by students’ basic needs has 5 times the odds of working in a school which emphasis academic success than the teachers whose teaching is limited by students’ basic needs. (OR = 5.11; 95% CI from 1,59 to 16.3). The estimated odds ratios of the other variables were found not significant in Turkey at 0.05 level.

In Singapore, teachers who work in a safe, orderly, and disciplined school have nearly 3 times odds of working in schools which emphasis academic success than the teachers working in not safe, orderly, and disciplined schools (OR = 2.88, 95% CI from 1.97 to 4.22). Significant value was also gathered for such ratio at 0,05 level. In addition, teachers whose teaching is not limited by students basic needs has 2 times the odds working in a school which emphasis academic success than the teachers whose teaching is limited by students’ basic needs (OR = 2.06; 95% CI from 1.42 to 2.99). The estimated odds ratio was significant at 0.05 level. Moreover, teachers whose students are exposed to the homework pressure has more than 3 times odds of working in a school which emphasis academic success than the teachers whose students do not exposed to the homework pressure (OR = 3.29; 95% CI from 0.870 to 12.4). The estimated odds ratios of the other variables were found not significant in Singapore at 0.05 level.

#### 4. Discussions and Conclusion

In the literature , it was expressed that as well as being the one of the ingredients of the school climate and its relation to the instructional quality, schools emphasis on academic success has been studied based on its

effect on students' both achievement and motivation (Mullis et al. 2012; Nilsen & Gustafsson 2014; Scherer & Nilsen, 2016). A better understanding of how school emphasis on academic success can be promoted in the desired level is one of the key dimension that create more efficient schools that contribute education system. This understanding also contributes to the school leaders and policy makers by being aware of the factors fostering schools' emphasis on academic success by relating these factors to the instructional quality.

In this study, as being one of the components of school climate and expected to be one of the robust predictor of schools' emphasis on academic success, safety, order, and discipline issues was selected as the first explanatory variable of our study. In addition, students' needs that limiting teaching in the classroom was determined as another predictor because of its relation to the classroom composition which is also linked to the students' socioeconomic status. The frequency of homework which was assigned to the students was selected to be one of the indicator of academic pressure in schools. Teachers' education level was stated as one of the indicator about teachers' depth of knowledge which is related with the instructional quality. So, we also included teachers' education level to our study as a predictor in our model. And, lastly, we included gender as a background characteristic of the teachers. Comparative approach enables us to gather important issues to the discussion part of the study as presented at the results. Since the TIMSS 2015 database was used in this study, we only used the variables that was presented by TIMSS and this limitation do not allow us to include some variables that could be related to schools' emphasis on academic success such as teachers satisfaction of their jobs.

Although there are some minor limitations based on the nature of the study, we found that schools' emphasis on academic success varies across the three countries after controlling the group of variables. Among the three countries, Finland is the country where teachers view their schools have the highest likelihood of emphasis on academic success. On the other hand, teachers in Turkey reported that their schools show lower likelihood of emphasis on academic success than those of Finland.

Martin et al. (2013) reported that among all the school factors in TIMSS, school emphasis on academic success is one of the construct which is strongly predict students' achievement. The report also revealed the correlations between school emphasis on academic success and students' mathematics and science achievement. When we compare the correlations of Finland and Singapore, we realize that the correlation coefficients were very close to each other. In addition, although Finland and Singapore are among the high performing countries in TIMSS 2015, we can say that our group of variables that we have used as covariates lead to Finland to have highest likelihood of schools that emphasis on academic success. Surprisingly, while Turkey was ranked under the TIMSS 2015 average and Singapore was the top achiever among all countries in mathematics and science at fourth grade level (Mullis et al., 2016), teachers in Turkey has a greater likelihood of being in the schools in which the academic success is emphasized. So, our group of covariates that was used in this study lead Singapore's schools have least likelihood of emphasis academic success. The effects of the covariates will be discussed separately in the next paragraph for each country.

As the studies in the literature indicated (Martin et al., 2013; Nilsen & Gustafsson, 2014), this study attest safety, orderly disciplined issues in a school is one key characteristics of schools associated with the schools emphasis on academic success. In all the three countries, it is very important to ensure safety, order and disciplined school to foster the school's emphasis on academic success. This study also indicate with the agreement of examined literature (Martin et al., 2013; Milam et al., 2010; Nilsen and Gustafsson, 2014), safe, order and disciplined school lead lots of opportunities to the schools to focus on teaching and learning which in turn emphasize academic success. Especially in Turkey, the odds of having a school which emphasize academic success decreases by more than 7 times when this school is not safe, orderly and disciplined.

Focusing on learning and prioritizing and fostering academic success can be appropriately implemented by allocating time, energy, and resources (Nilsen & Gustafsson, 2014). Students basic needs such as prerequisite knowledge, enough nutrition, and enough sleep could be very big problems for primary teachers to deal with. In our study, among the three countries, Finland is the country in which students' basic needs that limited teaching is not significantly associated with the school's emphasis on academic success. This may be related the socioeconomic status of the students in Finland. In addition, in Turkey, the odds of having a school in which academic success is emphasized 5 times increases if the teaching in this school is not limited

by students' needs. The results also may be explained by the distribution of students' socioeconomic status (SES) in Turkey. Based on the PISA 2015 results, more than half of the students in Turkey are in the bottom decile of the international SES distribution (OECD, 2016a). On the other hand, surprisingly, in Singapore, although students' SES are high, limitation of teaching by the students need is associated with schools' emphasis on academic success.

The frequency of homework was stated as an indicator of academic pressure (Kythreotis et al., 2010) which is a factor that reflecting priority of academic success. For this variable, the only significant relation was found for Singapore. In Singapore, teachers whose students are exposed to the homework pressure which reflect to academic pressure, the odds of having a school in which academic success is emphasized 3 times increases when compared to the teachers whose students do not exposed to the homework pressure. In a study, it was revealed that whereas positive association was found between the frequency of given homework and students' achievement in Singapore, the relationship was found non-significant for Turkey in TIMSS (Güven & Akçay, 2019). On the other hand, the association of teacher education level, which can be shown as an indicator of teachers' depth of knowledge in content and pedagogy, with the school emphasis on academic success is significant for only Finland. The highest percentage of the teachers who have master and PhD degree in Finland among three countries can be shown the reason of this result.

It is very important to research in the subject of schools' emphasis on academic success since its undeniable contribution on students' achievement. Therefore, in light of the related literature, the new factors that affect schools' emphasis on academic success should be studied based on the other international large-scale assessments such as PISA and TALIS. And it could be valuable to design a study which includes the factors revealed in this study for TIMSS 2019 data which is expected to release at the end of this year.

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## Studying Abroad from the Perspectives of Turkish Graduate Students in the USA\*

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### ABSTRACT

Studying abroad is a unique experience including social and cultural practices and affects students' education, life styles, habits and identities. For a better insight about this unique experience, the experiences of students studying abroad need to be analyzed deeply. In this context, this study aims to understand the experiences of eight Turkish graduate students studying in the U.S. The study was designed as a qualitative study and phenomenology was used as a research method. The data of the study was obtained through semi-structured interviews conducted face-to-face by the researcher. All participants finished their undergraduate education in Turkey, and pursue their education in the U.S. with different scholarship and funds. The interviews were recorded with participant consent and the data was analyzed with content analysis technique. The findings reveal educational, social and cultural dimensions of studying abroad experience.

#### Keywords:

Studying abroad, graduate students, university, student experiences

### 1. Introduction

Studying abroad has a long history dating back to Aristoteles, and it has been popular for enrichment of culture, pedagogy, and intellectuals. Every nation and culture had their own progress and richness, and intellectuals have always urged to benefit from them. Thus, it is possible to see incidents of studying abroad almost in every country and era; however, studying abroad has had its milestone in the 19<sup>th</sup> century with high numbers of foreign students and investments in foreign education. Today, there are more than 3 million students studying abroad.

Turkey has a similar history for studying abroad. Since the 19<sup>th</sup> century, Turkey has been sending many students abroad and it is true that most of these students have had an important place in the government, universities or intellectual field. According to OECD data, Turkey sent 52048 students to study abroad in 2005. Also in 2019, the program of Selecting Graduate Students to Study Abroad (Yurt Dışına Lisansüstü Öğrenim Görmek Üzere Gönderilecek Öğrencileri Seçme ve Yerleştirme – YLSY) was announced to send 1195 students to study abroad. It is a program that provides scholarship and job positions in Turkish universities after finishing PhD degrees abroad. In total, the number of students studying abroad for language courses, internship, undergraduate and graduate degrees is summed up as more than 100,000. Moreover, Turkey invests more than 2 billion dollars on studying abroad every year. These numbers of students abroad and investment margins outline the significance of studying abroad.

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Studying abroad has effects on international economy. In the international market, graduates of abroad universities seem to have better chances of getting a job (Waibel, Petzold & Rüger, 2018; Di Pietro, 2012; Parey & Waldinger, 2010). Studying abroad improves students' global literacy skills (Farrell, 2007) and intercultural awareness (Gao & Kennedy, 2019; Ingraham & Peterson, 2004), and administrations encourage students to take various classes, improve their foreign language skills (Farrell, 2007). Moreover, studying abroad is reported to have positive effects on human capital, which is effective in taking a position in labor market (Schmidt & Pardo, 2017). Especially for under-developed or developing countries, studying abroad seems to constitute a good chance for young to get high prestige jobs (Coffman, 2000).

Alongside with labor market advantages, studying abroad has positive effects on students' personal development. Various studies have shown that students' self-efficacy (Cubillos & Ilvento, 2012), language skills (Ife & Meara, 2000), vocational identity (Kronholz & Osborn, 2016), creative abilities (Fu, 2017) and sense of own capacities (Wilson, 2018). Also, universities are willing to establish partnerships for internationalization and cultivation of global citizenship (Take & Shoraku, 2018).

Students who study abroad also report academic advantages of studying abroad (Costello, 2019; Hadis, 2005). It is hypothesized that students are able to take a small break while they are still in the system, increasing their academic motivations (Trower & Lehmann, 2017). Also, students experience experiential education when they study and benefit its positive effects (Dewald, Jimenez & Self, 2016). They experience different educational activities and routines, and they increase their educational awareness.

Although studying abroad has many advantages, students from underprivileged families are reported to attend less into studying abroad program (Lörz, Netz & Quast, 2016). It seems that students from low socio-economic groups benefit less from these international programs (Di Pietro, 2019) as these programs require personal investments as well. Even though governments or universities have their funds for international programs, individuals need to save an amount for this experience.

With its advantages and disadvantages, studying abroad is a significant experience for students whose impact could last for more than 50 years (Dwyer, 2004). Researchers indicate studying abroad is a significant experience for students (Costello, 2015) and it is a unique experience for individuals not resulting in the same outcomes for every one (Mendelson, 2004). Thus, studies differ from each other according to the contexts. The features of host country, host school, inhabitant country and schools affect the experiences of studying abroad. Students generally start studying abroad with high academic or personal growth hopes (Mendelson, 2004); however, the situations they confront in the host institution and their previous experiences of schooling affect how they would organize this unique experience.

Students experience academic, personal, cultural, emotional and sociological differences and difficulties while studying abroad. Many universities embody desks or offices for international students as well as certain programs to guide students in terms of academic gains to be used in their career (Pilonieta, Madina & Hathaway, 2017). Also, there are suggestions for students to handle emotional difficulties (Cheng, Friesen & Adekola, 2019). However, the individuality of student experiences and difficulties make it difficult to come up with certain supplementary programs. For instance, American students state cultural training programs are not always sufficient in guiding them (Erffmeyer & Al-Khatip, 2015), and studies show attempts to organize studying abroad experiences and influences are often ineffective (Öhrstedt & Scheja, 2017). Thus, the experiences of students studying abroad should be studied in depth and more often to organize these programs in support of students and institutions.

In Turkish language, "gurbet [abroad]" is connotated with loneliness and sorrow. While reading the book of Ayşe Göktürk Tunceroğlu (2008), the experiences of students abroad seem much more important to me. Among many host countries, the most common country in studies of studying abroad seems to be the U.S. Many students visit the U.S. universities, language courses and other educational institutions every year. For instance, Japanese female students prefer American universities to improve their human capital for the competition of global economy (Ono & Piper, 2004). Also, many students in Turkey prefer American universities. Their experiences, struggles and academic dispositions are not visible to Turkish partners and institutions, and they need to be studied thoroughly. In this sense, this study aims to understand the experiences of Turkish graduate students who study in the U.S. This way, it is hypothesized that supportive models and programs could be developed and more benefit could be generated from these experiences.

## 2. Methodology

### 2.1. Research Design

This study aims to focus on the experiences of Turkish graduate students who study abroad, thus the individuality and uniqueness of the data is of capital importance. For this reason, the study was designed in the qualitative paradigm. Qualitative studies allow researchers to analyze the experiences, phenomenon, and events deeper. The main concern of this study is the experiences of students studying abroad, thus phenomenological method was adopted. The foundational question of phenomenology asks the meaning of the lived experience of a person or group of people. This way, the meaning, or phenomenology, of life experiences could be understood deeply (Patton, 2002). The phenomenon of this study is determined as studying abroad, and graduate students' experiences are aimed to be understood deeply.

### 2.2. Participants

Qualitative studies require purposive sampling to provide cases with rich information (Patton, 2002). Thus, the participants of this study were selected with purposive sampling principles. When the researcher was in Lubbock, Texas for his graduate studies, he met many students who are experiencing studying abroad. Their life styles, concerns for career and education, cultures and values took his attention and became the motive of this study. The participants consist of five (5) male and three (3) female Turkish graduate students who went to Lubbock for educational purposes. The majors of the participants are presented in Table 1.

**Table 1.** Participants

Participant Code	Gender	Major	Level
S1M	Male	Chemistry	Graduate
S2M	Male	Geography	Graduate
S3M	Male	Education	Graduate
S4M	Male	Sociology	Graduate
S5M	Male	Business	Graduate
S6F	Female	Education	PhD
S7F	Female	Architecture	Graduate
S8F	Female	Mathematics	Graduate

### 2.3. Data Collection Tools

The data of this study was collected through face-to-face interviews. Interviews enable researchers to infuse into the worlds of participants (Patton, 2002). To understand the experiences of student studying abroad from their perspectives. The semi-structured interview form was designed by the researchers, and expert opinions were received by two external researchers. Also, two pilot interviews were conducted to increase the validity of the interview form. All participants were interviewed by the researcher face-to-face and the interviews took 26-54 minutes. The interviews were recorded with the consent of the participants.

### 2.4. Data Analysis

The data of the study was analyzed with content analysis technique, which enables researchers go deep into the data and understand hidden concepts. All interviews were transcribed by the researcher, and the transcriptions were sent to the participants for correction and validation. After participants approved transcriptions, the data was coded and themes were drawn. For analysis reliability, the codes and transcriptions were sent to two experts with PhD and they analyzed the data. For inconsistencies, meeting with all analysts and consistency was achieved.

## 3. Findings

Studying abroad is a significant process for time, energy, money, professionalism and education. To understand this process better, this study aimed to understand students' experiences without any interference. The data of the study consists of eight interviews taking 26 to 54 minutes. The participants described their experiences in terms of educational concerns, life conditions, difficulties they faced and friendships. The data was analyzed with content analysis technique, and themes drawn from the data are presented in Table 2.

**Table 2.** Findings in themes

Fre. order	Theme	Explanation	Quote
1	Language problem	Experiencing difficulties due to language problem on first arrive	<i>"The biggest problem I had was language. I didn't know English well, so it was very difficult for me" (S2M).</i>
2	Academic expectations	Academic expectations are high in the U.S. although school and undergraduate levels are much lower than Turkey	<i>"Master's and PhD are very demanding here. Professors expect a lot from you. But in lower levels like secondary school, the education level is lower than Turkey"(S3M).</i>
3	Academic atmosphere	Academicians are much into their business in the U.S.	<i>"Here, academicians care only your work. Your title, religion, identity... Nothing is important. They just want to do their job" (S4M).</i>
4	Friendships	Turkish friends are much sincere; however, one needs foreign friends for language development and cultural integration	<i>"You can ask anything from your Turkish friends, they are closer to you. Of course you need American friends for development, but they cannot be like Turkish people" (S1M).</i>
5	Turkey	Americans do not know about Turkey	<i>"They don't know where Turkey is on the map, they even asked me if we spoke Arabic" (S4M).</i>
6	Turkish people in the U.S.	Turkish people are not united in the U.S.	<i>"Turkish people are not in a union here. They all have their small communities, and you are not welcome if you're not one of them" (S5M).</i>
7	Staying long	Participants want to stay in the U.S., but not very long	<i>"I want to return Turkey of course, I don't want to live here for long. But now, I am studying my PhD and comfortable here" (S6F).</i>
8	Missing	Participants stated they missed Turkish food the most	<i>"I miss Turkish food very very much. I think we have better food in Turkey, this is the only thing they cannot beat us" (S3M).</i>

The participants described their experiences in three different dimensions: education, life case, and Turkey. In term of education, they referred their academic responsibilities and the academic atmosphere in their universities. As all of the participants were graduate students doing their Master's degree of PhD, they had educational responsibilities and they could easily observe the experience of being a student in different levels (undergraduate, primary school, high school, etc.). Also, most of the participants had the position of assistant in Texas Tech University, so they could observe the academic atmosphere as personnel.

The second dimension of their experiences was life case. Participants mentioned their experiences in a different homeland with a different language. They referred the difference of life conditions in the U.S., the difficulties they faced and their coping mechanisms for these difficulties. Lastly, participants talked about the impression of Turkey in the U.S., Turkish friendships in their city and their feelings about Turkey. Apparently, their home country has an effect on their experiences, and this fact was taken as the third dimension.

### 3.1. Findings about Education

All the eight participants were graduate students, and this role of theirs affected their experiences the most. The social sphere they attend the most is university, and education is one of their biggest responsibilities and reasons they exist in the U.S. Thus, participants referred educational issues often, stated clearly that they gained an insight into American education system. The second and third themes in Table 2 will be discussed under this dimension: *academic expectations* and *academic atmosphere*.

A shared understanding was apparent among the participants about academic expectations in the U.S. All of the participants studied primary, secondary, high schools and undergraduate levels in Turkey. Thus, they compared the American education system with Turkish education system. Apparently, they shared the idea that American education is less demanding before graduate level; however, graduate level was more demanding than it is in Turkey. For instance, one of the participants stated: *"They expect you to do more here. They give an assignment every week, you have to study all the time. In Turkey, we study only one week before the exams and it is enough. Here, you have to study every week"* (S3M). All participants agreed on high academic expectations in the U.S.

The educational process in the U.S. is perceived differently than Turkish education. Participants referred process evaluation being used, multiple assessments, high track system and personal effort in the American education system. One of the participants stated *"Here, you have to put on much more effort, and your professor needs to see it. If you don't try hard enough, you will fail. But if you put enough effort, they always support and encourage you"* (S7F).

However, participants agreed on the easiness of lower levels in the U.S. They referred lower levels of education being much less demanding and consisting of easier subjects and objectives. For instance, one participant preferred this issue as: *"Here, school is easier. They teach simpler subjects at all levels. In Turkey, we teach one subject in high school. Here, they study the same thing in undergraduate level, or may be in a higher level"* (S6F). Also, participants agreed the seriousness of Turkish education in lower levels. They perceived American education being less serious and one participant stated *"I had a chance to observe a couple of primary school classrooms. They are much less organized and focused. Someone enters into the classroom, someone leaves... There is an interruption all the time"* (S2M).

For the academic atmosphere, participants had the similar perception of a more professional atmosphere in universities. *"People here do not care who you are, or what you believe. They only look at your publications, your effort and work. They are much more professional"* (S2M). Instructors and personnel in American universities did not discriminate or favor people for their personal choices, identities or relationships. *"They tell you that they like you very much and they mean it, then they tell you they cannot hire you as you are not qualified enough"* (S6F). Also, *"I was never discriminated for being a Muslim. And I know people with tattoos etc working at university. They don't care as long as you do your job well"* (S1M).

### 3.2. Findings about Life Case

Living in a different country, for what reason it would be, brings different life conditions. People experience different language, culture, life styles, routines, rules and values. Similarly, participants of this study shared a common understanding about life abroad, especially in terms of language. They stated the biggest difficulty they faced as language problem, no matter how their English level was. One participant stated *"The biggest problem was language when I first came here. Although I knew English, I couldn't understand a word. I remember not understanding supermarket cashiers, even not being able to say 'water' properly. I couldn't explain myself and I was dependent on my Turkish friends for shopping and etc for a long time"* (S3M). Besides, participants who stated their English level as low before going to the U.S. described their first couple of months as very difficult for not being able to communicate in English. All participants referred their Turkish friends for help; however, they all stated they were not comfortable for not being able to take care of themselves. Here, the individuality of American life style becomes apparent. Language problem is a difficult issue for many; however, participants defined the difficulty clearly as not being able to take care of themselves. One of them stated *"I was dependent on my Turkish friends all the time. As you don't know English, you can't do anything on your own. That was the biggest difficulty"* (S5M).

Also, participants reported they had culture shock upon their arrival. They defined the culture of America being more individualistic and they referred this feature as causing uneasiness. *"Here, you are on your own. Everyone is alone. If I had a chance, I would have married before I came here. If you are married, you have somebody to*

*share. But I was single and all alone*" (S4M). It took time for them to get used to the life conditions and make friends, so they all stated experiencing loneliness first. Interestingly, participants did not signal this loneliness to perish, yet they got used to this culture of individuality.

For socialization, participants mentioned Turkish and foreign friends of theirs. They shared the same insight of Turkish friends being vital for their life in the U.S., because they were helpful and closer to them. They all described how their Turkish friends helped them upon their arrival for finding house, a car, shopping, etc. Yet, they did not prefer all-Turkish friends to get used to American life style. *"When you have only Turkish friends, you never learn anything. You don't learn language, You stay Turkish in America"* (S1M). Nevertheless, they never gave up on their Turkish friends and counted on them for any emergencies and closer relationships. Participants referred their American friends being understanding, nice, but distant. They all agreed that American friends were crucial in language development and cultural integration; however, American friendship culture was found distant and unsatisfactory by participants.

Another notion for life conditions, it is necessary to mention what participants missed the most about Turkey. American life conditions are different for obvious reasons, and what participants miss tells us the breaking point. All participants shared the same longing about Turkey: food. They described American food culture being much different and they miss Turkish food like kebab, lahmacun, etc: *"I miss Turkish food the most. I already love eating, and I loved it when I was in Turkey, too. Kebab, lahmacun... I miss them a lot"* (S2M).

Interestingly, participants stated they would not prefer to stay in America for lifetime. Although they shared the same ideas about the easiness and comfort of American life style, they stated they would not like to stay in the U.S. for good: *"It is really comfortable here. Everything is more systemized and I feel comfortable. But, I want to return some time. It is good that my child was born here, but I don't want him to grow up here"* (S4M). Nevertheless, none of the participants stated they would return at a specific time. Instead, they referred their return as vague such as *"some time, later, in the future"*. They preferred studying in the U.S. for better academic qualities (5 of the participants) and scholarship (3 participants), meaning they did not choose to live in the U.S. before arrival. However, they shared common ideas on better life conditions in the U.S. and equivocated about their return to Turkey.

### 3.3. Findings about Turkey

For participants' experiences, the perceptions of Turkey as a country were determinative. Participants mentioned Americans did not know about Turkey and they thought Turkey was an Arabic country. *"They think we speak Arabic. I tell them that I wear the same clothes in Turkey, too. They find it difficult to believe. I even show them my photos sometimes. They think all women in Turkey has to wear hijab"* (S7F). With these wrong impressions on Americans, participants take on responsibility to defend and advertise their country, and *"... Turkish government should do better to show who we are"* (S2M). Especially for historical controversies such as Armenian issue, participants believe Turkish government and intellectuals should work harder and make clear explanations. In that, they state Americans believe them when they make decent explanations; however, they find national efforts unsatisfactory. *"Most people here are educated, so they can easily explain these issues. When you explain topics like Armenian issue well, they believe in you. But Armenians have documentaries, movies, and advertisements. We have nothing. So, they don't know"* (S3M).

For Turkish people in the U.S., participants share negative ideas. They state their expectations of a united Turkish community, but Turkish people are much disconnected. They are content with the culture of help they received upon their arrival, yet they clearly specified Turkish people being gossipers, discriminative and self-seeking. They complained about Turkish people not being able to unite although other nations united very easily in their city. Turkish people discriminated each other for their religions communities, politic ideas, etc. One participant stated *"Even Indians are united here, but Turkish people discriminate each other. When they see you first, they want to know whom or where you belong to, your politic ideas or your religious concerns. However, we need to be union here. We have only each other"* (S6F). Apparently, Turkish people in the city sustain their hometown cultures there, and participants clearly specified their discontent of this apartness.

## 4. Discussion

The experiences of Turkish graduate students studying abroad are affected by three different factors: the features of primary social institutions they become a part of, the social features of people (both local and

foreign) in the new homeland, and local people's perceptions about their home country. These factors define the way students work, socialize and select their connections whether it would be their home country or the lived one.

The participants of the study shared the same idea about the education system in America: it is easy for lower levels, but it is more demanding for Master's and PhD degrees. For Master's and PhD levels, participants did not state the subjects taught being more difficult; however, they clearly defined they had to work every week and it was different from Turkish education system. Turkish educational system relies on product assessment with mass student selection examinations such as High School Entrance Exam (Lise Giriş Sınavı – LGS), and Higher Education Exam (Yükseköğretim Kurumları Sınavı – YKS). Students go through levels according to their marks on these standard tests. As those tests are product assessment techniques, they affect school systems. Primary school teachers do not find themselves proficient in alternative and performance assessment methods (Birgin & Baki, 2009). So, the participants are not used to process assessment and they clearly find it difficult to adapt.

The next difference participants observed between Turkish and American academic feature was the atmosphere. They agreed American academic atmosphere be more professional. The dissatisfaction of Turkish academicians about Turkish academic atmosphere is apparent in various studies (Ölçer & Koçer, 2015; Buluş, 2004). The reason of this different between job contexts between Turkey and America may result from the difference of social values two different nations possess (Titrek & Cobern, 2011; Aygün, Arslan & Güney, 2008; Wasti, 1998). Also, the differences between two management systems result in differences in academic atmosphere in the two countries (Çiçek, Ulker & Tarman, 2012).

The next dimension affecting students' experiences abroad was surely the life conditions of the new homeland. The values, norms, rituals, routines and rules of the social life in the new homeland affect the newcomers' experiences by themselves. Also, the relationship of these social features with the hometown cultural elements determines the way of these experiences. If the hometown and new homeland cultures are alike, the newcomers do not experience much difficulty and find it easier to adapt. However, when there are big differences and new regulations for daily life, newcomers may suffer through adaptation process.

The biggest difference participants of this study experienced was understandable, as one of the primary necessities of humans, the way of communication was different. The local people used a different language, and the participants agreed on stressful adaptation process on first arrival. As English language education is found problematic by many studies, it is understandable that students had a low English level before they went to the U.S (Kizildag, 2009). However interestingly, the participants who told to have a good level of English suffered the most because of English, too. They mentioned dialect difference and difficulty in understanding and expressing themselves. This may have resulted from less weighted skills in language education: listening and speaking (Alptekin & Tatar, 2011; Demir, 2017). Yet, language is culturally determined and structured and the way natives and second language learners use English in different ways (Aydin, 2013). Thus, newcomers need intercultural communication skills which need to be practiced exclusively before studying abroad experiences (Goldoni, 2015) and best learned by authentic practice.

The second experience participants shared about life case was culture shock, meaning that the life in America was sociologically differently constructed than the life in Turkey. Studies reveal Turkish and American people differ in their consuming habits (Rawwas, Swaidan & Oyman, 2005), identity formations (Tompkins, Galbraith & Tompkins, 2010; Kaya, 2004), and social norms (Lecompte & Lecompte, 1973). Thus, the adaptation process is understandable for students studying abroad (Bektaş, Demir & Bowden, 2009). However theoretically speaking, the experience Turkish students had in the U.S. been not a culture shock but an adaptation process (Ortaçtepe, 2013).

Thirdly, the life case of students studying abroad was deeply affected by their friend choices. They differentiated friendship reasons as beneficial and affective. For adaptation, language development, cultural integration and personal development benefits, they preferred American friends. This idea of participants is in parallel with other studies (Duru & Poyrazlı, 2011; Bektaş, Demir & Bowden, 2009). However, for intimate relationships, asking for help easily and sharing they preferred culturally closer agents: Turkish friends. Similarly, research shows friendship and happiness is culturally specific and may vary for Turkish and American citizens (Demir, Özen & Doğan, 2012). All participants agreed having only-Turkish friends

would keep them isolated from American culture and prevent them reach their academic goals. However, they could not feel socially satisfied with friendships with American and searched for closer relationships, which may be caused from different perceptions of privacy and personal space for American and Turkish students (Kaya & Weber, 2003).

As Turkish students in the U.S. did not prefer culturally American social spheres for socialization, it is understandable that they did not want to stay in America for lifetime. They had the same conception of their time in America: temporary. Social structures and relationships were not satisfactory to them (Kaya, 2009), and they all dreamed about returning to Turkey. However, they could not define a specific time such as "when I finish my PhD, etc.". In addition, they all shared the same missing about Turkey: food. It is understandable that students studying abroad feel homesickness about certain elements (Carden & Feicht, 2001). However, food is not only a necessity to live in Turkey. It is socially structured as spending quality time, socializing with friends and family, and related to happiness and joy (Sağır, 2012). However in America, food is not a socially gathering item, and people do not spend much time in kitchen as Turkish people do. Besides the taste of Turkish food, it is possible that participants missed Turkish food for social reasons, too.

The last dimension determining the experiences of students studying abroad was the impression of Turkey on local people, Americans. The participants shared understanding of Turkey being mis/under-advertised in the U.S. They stated Americans do not know about Turkey, and they associate Turkey with Arabic countries. Participants hold Turkish government and students responsible for decent advertisement, and they believe it is possible to publicize a good image of Turkey. "If we had a better education of history, I believe Turkish people could easily answer questions about Armenian issue, etc. But students here do not know well, and they cannot make good explanations. So, Americans believe in other stories" (S4M). Local people's ideas about one's home country are effective in social relations (Kaya, 2009), and students should be supported with quality history education for possible questions.

Lastly, participants shared the same understanding about Turkish people in the U.S. They declared Turkish people pursuing Turkish fractions in America, and remarked their dissatisfaction. They all believed they needed to be united in the foreign land, but people discriminate their countrymen for religious and political reasons. As they counted on Turkish friends for social comfort, this negativity affected their feelings.

All in all, the experiences of Turkish graduate students studying abroad were shaped with educational features of American universities, social dynamics of America, and the image of Turkey and Turkish people's relationship among each other. As most of the participants were in the U.S. with Turkish scholarship, the government or educational institutions could conduct orientation programs for adaptation process and possible problems students might encounter. Also, students should be supported with national historical knowledge before they go to a foreign land. Lastly, better opportunities and academic atmosphere should be provided for students abroad to return Turkey and prevent brain drain.

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