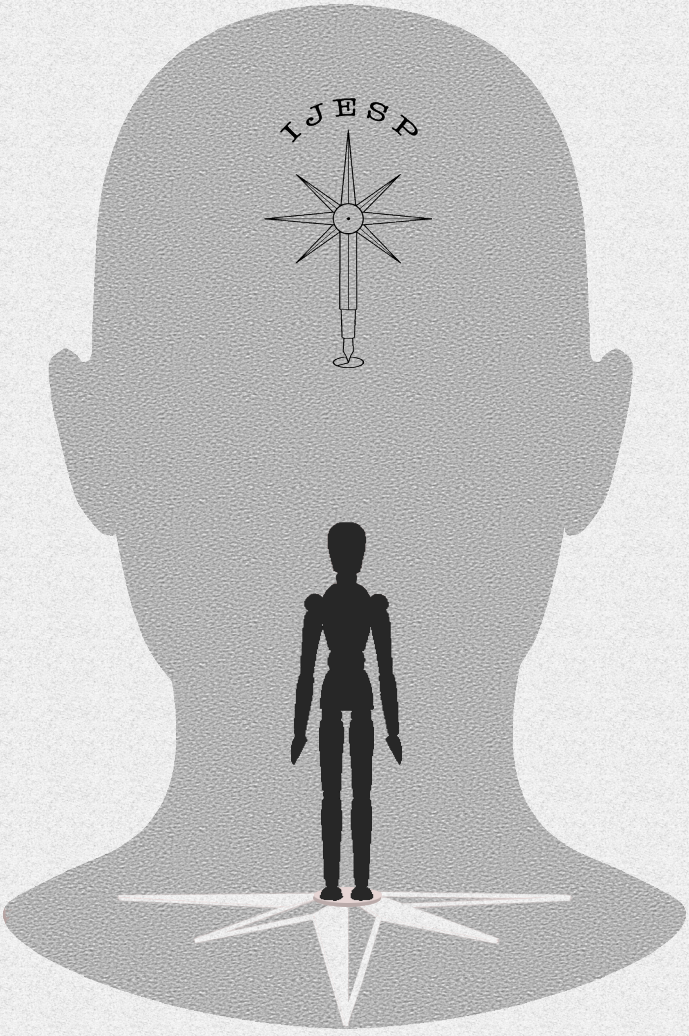
I J E S P

International Journal of Educational Studies and Policy

ISSN: 2718-1022

Volume: 2, Issue: 1, May 2021



www.ijesp.net

International Journal of Educational Studies and Policy (IJESP)

Volume:2, Issue:1, May 2021

International Journal of Educational Studies and Policy (IJESP) focuses on teacher education, applied studies, and research methods within the scope of empirical and conceptual studies in the field of educational sciences. It is an international peer-reviewed journal that publishes two issues a year, around May and November, and its publication language is English.

Web: www.ijesp.net

E-mail for correspondence: info@jesp.net

CONTENTS

IJESP Volume:2, Issue:1, May 2021

International Journal of Educational Studies and Policy (IJESP)

Volume: 2, Issue: 1, May 2021

An Analysis of the Internet-Triggered Academic Dishonesty and Reasons of Preservice Teachers*

Adnan Taşgın[1] Fatma Gerez Taşgın[2]

ABSTRACT

This study is to examine preservice teachers' internet-triggered academic dishonesty situations and their reasons for it. The research is a survey study which is one of the quantitative research methods. The population of the study consists of preservice teachers who study in the faculty of education at a state university in Turkey. The sample of the study involves preservice teachers chosen by the simple random sampling method according to the cluster sampling method. As a data collection tool, Internet-Triggered Academic Dishonesty Scale developed by Akbulut et al. (2008) was used in the study. As a result of the study, the internet-triggered academic dishonesty situations of the preservice teachers are on the level of "Very often", "Sometimes" and "Rarely" in the sub-dimensions of the scale and in the overall total. It was concluded that the preservice teachers expressed their opinions about the reasons for internet-triggered academic dishonesty as "Individual factors", "Institutional policies" and "sometimes" in sum total. Moreover, preservice teachers' internet-triggered academic dishonesty differs in terms of gender and male preservice teachers tend to commit more internet-triggered academic dishonesty. In addition to this, internet-triggered academic dishonesty also increases when the grade level of preservice teachers increases.

Keywords: Internet-triggered academic dishonesty, preservice teachers, plagiarism.

Article History: Received 06.09.2020 **Accepted 08.11.2020**

Cite as: Taşgın, A. & Gerez-Taşgın, F. (2021). An analysis of the internet-triggered academic dishonesty and reasons of preservice teachers. *International Journal of Educational Studies and Policy*,*2*(1), 1-14.

.

[1]Corresponding Author: Assoc. Prof. Adnan Taşgın, Atatürk University, adnantasgin@gmail.com, ORCID: 0000-0002-3704-861X

[2] Res. Assist. Fatma Gerez Taşgın, PhD Student, Atatürk University, fatmagereztasgin.90@gmail.com, ORCID: 0000-0001-5960-0658

* This study was presented at the "The Twelfth International Congress of Educational Research" (25-28 April 2019)

Introduction

Academic dishonesty is a general term that includes plagiarism and cheating. Plagiarism is defined with different words by different authors and institutions and is mostly explained in association with the terms academic dishonesty and cheating. Although it is explained in different ways and by highlighting different issues in the literature, all definitions emphasize the feature of "using someone else's ideas and opinions without reference" (Özenç Uçak, and Ünal, 2015). Academic dishonesty involves inappropriate behaviors such as copying answers of others in the exams, getting improper help from others to complete tasks, and using information without accurately citing resources (Qualls, Figgars, and Gibbs, 2017). Academic dishonesty is the illegal or unethical behaviors such as deception on academic tasks, cheating on exams, making changes on homework, changing exam papers, unauthorized use of others' work, plagiarism, and changing research results (Aluede, Omoregie, and Osa-Edoh, 2006).

Plagiarism, another form of academic dishonesty, is described as the stealing or misuse of intellectual property and the uncited use of someone else's work (Juyal, Thawani, and Thaledi, 2015). There are many research findings stating that the widespread use of technology and the use of computers and the internet have facilitated academic studies and they have spread in recent years. As a result of this, it is stated that academic dishonesty has increased.

Academic dishonesty among university students is recognized as a serious problem. Studies show that 8 out of every 10 students studying at the university admit that they cheat in exams (Gabriel, 2010). In addition to these, Vartiainen and Siponen (2002) state that plagiarism from the internet and unauthorized duplication or copying of studies of known origin is included in this.

Gerdeman (2000) discusses the individual factors that underlie individuals' academic dishonesty as academic achievement, age, social activities, branch and gender. The behaviors and attitudes of the peers affect the wrong behaviors of the students and the decisions they make like academic misbehaviors. It has been determined that students are willing to tend to academic dishonesty, as they constantly observe each other doing that. Individuals committing academic dishonesty consider it as normal or acceptable. Misbehaviors of other peers can lead individuals to misbehave (Crown and Spiller, 1998). It is observed that students who feel that their teachers are worried about them tend to be less dishonest, and students tend to be less dishonest when the teachers are indifferent or the subject seems unimportant and uninteresting (Gerdeman, 2000). Another field of dishonesty other than exams is assignments. Failure to assign homework appropriate for the students' levels, assigning excessive homework, inauthentic homework, homework that prevents students from revealing their creativity, homework that students directly report the source, not checking the assigned homework, assigning the same homework every year, result-based rather than process-based assignments cause the students to commit academic dishonesty (Odabaşı et al., 2007).

There are a lot of studies in the literature on academic dishonesty. When the results obtained from the researches were examined, it was seen that, the preservice teachers believed academic dishonesty was not ethical and that precaution should be taken to prevent it (Özden, Özdemir Özden, and Biçer, 2015). It was found out that 61.72% of Taiwanese university students have acted within the scope of academic dishonesty at least once during their higher education life (Lin and Wen, 2007), Korean university students have acted dishonesty behavior

once or more times at rates ranging from 21% to 69%. (Ledesma, 2011), 80% of Lebanese students and 54% of American students exhibited a behavior related to academic dishonesty (McCabe, Feghali, and Abdallah, 2008). Furthermore, undergraduate students do not have complete and accurate information about plagiarism, which is within the scope of academic dishonesty, and that they engage in misbehavior due to these misconceptions (Çakmak, 2015). Cicutto (2008) stated that plagiarism is quite common, and this is due to misunderstanding of plagiarism. Chapman, Davis, Toy, and Wright (2000) concluded that college students knew cheating was not ethical, but they still continued to cheat. It was noticed that the academic dishonesty that preservice teachers committed frequently was cheating in exams (Özden, Özdemir Özden, and Biçer, 2015). According to the results of the research, it was thought that it is important to examine the pre-service teachers' academic fraud tendencies and to reveal the current situation. The purpose of this study is to examine the situation and the reasons of internet-triggered academic dishonesty of preservice teachers. In this context, the sub-problems of the research were determined as follows:

• What are the preservice teachers' levels of committing internet-triggered academic dishonesty?

• What are the reasons of preservice teachers for committing internet-triggered academic dishonesty?

• Do preservice teachers' internet-triggered academic dishonesty and their reasons for it differ according to the gender variable?

• Do preservice teachers' internet-triggered academic dishonesty status and their reasons for it differ according to the grade of preservice teachers?

Method

Research Model

This study, which aims to examine the internet-triggered academic dishonesty of preservice teachers and their reasons for it, is a survey research which is one of the quantitative research methods. A survey design provides a quantitative description of trends, attitudes, or opinions in a population through studies on a selected sample from that population. In this design the researcher makes generalizable inferences from the data obtained from the sample (Creswell, 2013).

Population and Sample

The population of the study consists of preservice teachers who study at the education faculty of a state university in Turkey. The sample of the study includes 239 preservice teachers determined according to the simple random sampling method. The distribution of the preservice teachers in the sample according to various variables is given in Table 1.

Table 1. Characteristics of the sample group

Variable		**N**	**%**
Gender	Female	103	43.1
	Male	136	56.9
Grade	Freshman Year	45	18.8
	Sophomore Year	40	16.7
	Junior Year	53	22.2
	Senior Year	101	42.3
	Total	239	100.0

When Table 1 is examined, 103 (43.1%) of the 239 participants are female and 136 (56.9%) are male. In terms of grade variable, 45 (18.8%) participants from preservice teachers are in freshman year, 40 (16.7%) are in sophomore year, 53 (22.2%) are in junior year, 101 (42.3%) are in senior year.

Data collection tool

Internet-Triggered Academic Dishonesty Scale developed by Akbulut et al. (2008) was used as a data collection tool in the study. The scale consists of 2 sections. The first section consists of 26 items and 5 factors in which the opinions of preservice teachers on internet-triggered academic dishonesty are estimated. The second section, on the other hand, consists of 16 items and 3 factors in which preservice teachers' opinions on the reasons for internet-triggered academic dishonesty are determined. The scale is prepared as a 5-point Likert scale. The researchers, who developed the scale, reached the conclusion that the first section of it explained 59% of the total variance as a result of the exploratory factor analysis and with the second section 61% of the total variance was explained. A Cronbach Alpha reliability coefficient of the scale was calculated above .70. The Cronbach Alpha reliability coefficients calculated for this research are also above .70 for both the first and the second sections.

Data Analysis

Firstly, descriptive statistics regarding the preservice teachers' internet-triggered academic dishonesty level and their reasons were given. In the analysis of the data, the assumptions of the parametric tests were checked, and it was determined that the data did not show a normal distribution. The Mann-Whitney U test was used to analyze whether there was a difference between the gender variable and the internet-triggered academic dishonesty status and reasons, and the Kruskal Wallis test was used to analyze whether there is a difference between the grade variable and the internet-triggered academic dishonesty status and reasons.

Results

Descriptive statistics on the average scores of preservice teachers for internet-triggered academic dishonesty are given in Table 2.

Table 2. Preservice teachers' opinions on Internet-triggered academic dishonesty

Sub D.	İtems	$\overline{X}$	sd
Fraudulence	"Sabotaging other people's academic works through Internet."	1.86	1.25
	"Selling an individual project on the Internet."	2.00	1.37
	"Publishing other people's studies on the Internet without the permission of the author."	**1.67**	**1.17**
	"Adding the names of non-contributing people as authors."	2.03	1.32
	"Claiming to have used materials and references that were not actually used."	3.35	1.57
	"Claiming to have conducted a research that was not conducted."	3.63	1.64
	"Translating Internet resources and claiming personal authorship"	2.57	1.51
	"Fabricating information"	2.04	1.40
	"Deliberately providing wrong references"	1.85	1.42
	"Providing references at the wrong place of the assignment"	2.25	1.54
	"Slicing an Internet resource in a way that opposes the original document and favors personal point of view"	**3.68**	**1.64**
Plagiarism	**"Using other people's complete works on Internet for personal assignments without acknowledging the author"**	**4.11**	**1.23**
	"Using the important parts of other people's works on Internet without acknowledging the author"	3.93	1.29
	"Combining several resources found on the Internet and using in an assignment without acknowledging the authors"	3.36	1.41
	"Using Internet to copy others' work without permission"	**3.09**	**1.25**
	"Using Internet quotations in personal assignments without a quotation mark as one's own"	3.51	1.28
Falsification	"Changing the contents of Internet resources while citing, and attributing the ideas to the author"	4.10	1.28
	"Manipulating the scientific information on the Internet through personal comments"	**2.44**	**1.27**
	"Paraphrasing an Internet resource in a way that deteriorates the integrity of the original idea"	**4.13**	**1.21**
Delinquency	**"Using the same assignment in different courses"**	**4.23**	**1.12**
	"Citing from an Internet resource to an unacceptable extent"	4.00	1.36
	"Making spelling mistakes"	4.03	1.25
	"Doing friends' assignments using Internet"	**2.37**	**1.23**
Unauthorized help	**"Renting or buying a previously completed assignment through Internet"**	**1.30**	**.80**
	"Doing an individual assignment with a group using several Internet resources such as forums, chat rooms, blog, etc."	**3.62**	**1.20**
	"Having others to do individual assignments"	2.99	1.25

When Table 2 is examined, it is seen that the item that preservice teachers participated mostly in the "Fraudulence" sub-dimension of internet-triggered academic dishonesty is "Slicing an Internet resource in a way that opposes the original document and favors personal point of view ($\overline{X}$ = 3.68)" while the item with the lowest participation score is "Publishing other people's studies on the Internet without the permission of the author. ($\overline{X}$ = 1.67)." In the "Plagiarism" sub-dimension, the most participated item is "Using other people's complete works on Internet for personal assignments without acknowledging the author ($\overline{X}$ = 4.11)" while the least participated item is "Using Internet to copy others' work without permission ($\overline{X}$ = 3.09)." In the "Falsification" sub-dimension, the item with the most participation score is "Paraphrasing an Internet resource in a way that deteriorates the integrity of the original idea ($\overline{X}$ = 4.13)" while the least participated item is "Manipulating the scientific information on the Internet through personal comments ($\overline{X}$ = 2.44)." In the "Delinquency" sub-dimension, the most participated item is "Using the same assignment in different courses ($\overline{X}$ = 4.23)" while the least participated item is "Doing friends' assignments using Internet ($\overline{X}$ = 2.37)." In the "Unauthorized help" sub-dimension, the item with the most participation score is "Doing an individual assignment with a group using several Internet resources such as forums, chat rooms, blog, etc. ($\overline{X}$ = 3.62)" while the item with least participation score is "Renting or buying a previously completed assignment through Internet ($\overline{X}$ = 1.30)."

Descriptive statistics regarding the sub-dimensions and sum total averages of preservice teachers' views on internet-triggered academic dishonesty are shown in Table 3.

Table 3. Descriptive statistics regarding the sub-dimensions and sum total averages of preservice teachers' views on internet-triggered academic dishonesty

Subdimensions	$\overline{X}$	**Sd**	**Comment**
Fraudulence	2.44	.60	Rarely
Plagiarism	3.59	.79	Very often
Falsification	3.55	.67	Very often
Delinquency	3.65	.63	Very often
Unauthorized help	2.63	.66	Sometimes
Total	2.93	.43	Sometimes

When the mean scores of the preservice teachers regarding internet-triggered academic dishonesty on the basis of sub-dimensions and their arithmetic mean in sum total are examined, it is understood that they are "Very often" in "Plagiarism", "Falsification" and "Delinquency" sub-dimension, "Sometimes" in "Unauthorized help" and "Total" sub-dimension, and "Rarely" in the sub-dimension of "Fraudulence".

Descriptive statistics regarding the mean scores of the preservice teachers regarding the reasons for internet-triggered academic dishonesty are given in Table 4.

Table 4. Preservice teachers' opinions on the reasons for internet-triggered academic dishonesty

Sub D.	İtems	$\overline{X}$	sd
Individual factors	"Boring assignments"	3.84	1.34
	"Teachers' inclination to give a lot of assignments"	3.64	1.33
	"Doing assignments in a hurry"	2.31	1.30
	"Thinking that assignments will not help me personally and professionally"	**4.18**	**1.06**
	"Being very busy and having no time"	3.91	1.13
	"Uninteresting assignments"	2.18	1.29
	"Getting higher grades"	4.01	1.26
	"Having a very loaded social life"	2.45	1.37
	"Feeling incompetent on the subject matter"	2.17	1.27
	"Not appreciating the quality of personal works"	**1.89**	**1.24**
Institutional policies	"Non-existence of sanctions regarding academic misconduct"	3.96	1.32
	"Internet's encouraging and facilitating misconduct"	3.91	1.17
	"Teachers' turning a blind eye towards academic misconduct"	**3.90**	**1.21**
	"Insufficient penalties"	4.14	1.08
peer pressure	"Trying to show off towards the opposite sex"	1.72	1.09
	"Trying to impress friends"	1.52	.62

When Table 4 is investigated, the item that preservice teacher participated mostly in the "Individual factors" sub-dimension of the reasons for internet-triggered academic dishonesty is "Thinking that assignments will not help me personally and professionally ($\overline{X}$ = 4.18)" while the item with the lowest participation score is "Not appreciating the quality of personal works ($\overline{X}$ = 1.89)." In the "Institutional policies" sub-dimension, the most participated item is "Insufficient penalties ($\overline{X}$ = 4.14)" while the item with the least participation score is "Teachers' turning a blind eye towards academic misconduct ($\overline{X}$ = 3.90)." In the "Peer pressure" sub-dimension, it is seen that preservice teachers show low participation in the items "Trying to show off towards the opposite sex ($\overline{X}$ = 1.72)" and "Trying to impress friends ($\overline{X}$ = 1.52)."

Descriptive statistics related to sub-dimensions and sum total averages of preservice teachers' reasons for internet-triggered academic dishonesty are shown in Table 5.

Table 5. Descriptive statistics related to sub-dimensions and sum total averages of preservice teachers' reasons for internet-triggered academic dishonesty

Subdimensions	$\overline{X}$	**Sd**	**Comment**
Individual factors	3.05	.53	Sometimes
Institutional policies	2.98	.55	Sometimes
Peer pressure	1.61	.78	Never
Total	2.85	.41	Sometimes

When the arithmetic means in the sum total and average scores of the preservice teachers regarding the reasons for internet-triggered academic dishonesty are examined on the basis of sub-dimensions, it is understood that they are "Sometimes" in "Individual factors" and in "Institutional policies" sub-dimensions and "Total" and "Never" in the "Peer pressure" sub-dimension.

The results of the Mann Whitney U test analysis done for the differentiation of the preservice teachers' internet-triggered academic dishonesty and their reasons according to the gender variable are shown in Table 6.

Table 6. Differentiation of the preservice teachers for internet-triggered academic dishonesty according to gender variable

Dependent Variable	**Variables**	**N**	**Mean Rank**	**Sum of Ranks**	**U**	**Z**	**p**
Internet-triggered academic dishonesty status	Male	136	146.44	19916.50	3407.50	-6.799	**.000**
	Female	103	85.08	8763.50			
Internet-triggered academic dishonesty reasons	Male	136	120.75	16422.50	6901.50	-.194	.846
	Female	103	119.00	12257.50			

When Table 6 is examined, it is seen that the mean scores of the preservice teachers regarding their internet-triggered academic dishonesty differ significantly according to the gender variable [U = 3407.50, z = -6.799, p <.05], the mean scores for their reasons for internet-triggered academic dishonesty do not differ significantly according to the gender variable. [U = 6901.50, z = -. 194, p> .05]. When the median values of preservice teachers regarding the difference in internet-triggered academic dishonesty is examined, it is found out that there is a significant difference in favor of girls (Median $_{Male}$ = 80, Median $_{Female}$ = 71).

Whether preservice teachers' internet-triggered academic dishonesty status and their reasons differ according to the grade variable was analyzed by Kruskal Wallis test since the data did not show a normal distribution, and the results are indicated in Table 7.

Table 7. Differentiation of the preservice teachers for internet-triggered academic dishonesty according to grade variable

Dependent Variable	Grade	N	Mean Rank	df	x^2	p	Meaningful difference
Internet-triggered academic dishonesty status	Freshman Year	45	23.00	3	214.437	.000	4>3.2.1 3>2.1 2>1
	Sophomore Year	40	65.80				
	Junior Year	53	111.97				
	Senior Year	101	188.90				
Internet-triggered academic dishonesty reasons	Freshman Year	45	111.89	3	.848	.838	
	Sophomore Year	40	124.30				
	Junior Year	53	120.14				
	Senior Year	101	121.84				

When Table 7 is examined, it can be seen that preservice teachers' internet-triggered academic dishonesty status differs significantly according to the grade variable [Internet-triggered academic dishonesty status $_{(3)}$ = 214.437, p <.05]. It is understood that this difference is in favor of preservice teachers who study in the senior year among the preservice teachers in the senior year and the preservice teachers in the junior, sophomore and freshmen years, it is in favor of preservice teachers who study in the junior year grade among the preservice teachers in the junior year and the preservice teachers in the sophomore and freshmen years, and it is in favor of preservice teachers who study in the sophomore year among the preservice teachers in the sophomore year and the preservice teachers in the freshmen year. On the other hand, it is seen that the reasons of preservice teachers for internet-triggered academic dishonesty do not differ significantly according to the grade variable [Internet-triggered academic dishonesty reason $_{(3)}$ = .848, p> .05].

Discussion and Conclusions

When the mean scores of the preservice teachers regarding internet-triggered academic dishonesty were examined in the sub-dimensions and the sum total arithmetic averages, it was found that they were “Very often” in the “Plagiarism”, “Falsification” and “Delinquency” sub-dimensions, “Sometimes” in “Unauthorized help” sub-dimension and “Total”, and “Rarely” in “Fraudulence” sub-dimension. When the arithmetic means in the sum total and average scores of the preservice teachers regarding the reasons for internet-triggered academic dishonesty were examined on the basis of sub-dimensions, it was understood that they were "Very often" in the "Plagiarism", "Falsification" and "Delinquency" sub-dimensions, "Sometimes" in “Unauthorized help" sub-dimension and "Total", and "Rarely" in the "Fraudulence" sub-dimension. It was concluded that preservice teachers commit internet-triggered academic dishonesty very often and sometimes. Özden, Özdemir Özden and Biçer (2015) reached a similar result to this result in

their research. According to the related research findings, 60% of the preservice teachers who are direct observers of these behaviors believe that academic dishonesty is very common.

It was revealed that preservice teachers' internet-triggered academic dishonesty status showed a significant difference in favor of females according to the gender variable. According to this result, males commit more internet-triggered academic dishonesty compared to females. There are also similar research results. The studies conducted by Taşgın, Kıncal, Küçükoğlu and Ozan (2019) and Kadı, Baytekin and Arslan (2016), showed that male students commit more academic dishonesty. In the study of Ömür, Aydın, and Argon (2014), it was explained that male students show a higher tendency than women in the dimension of fraud tendency in research and reporting. Also Kıral and Saracaloğlu (2018) reached similar conclusions. In the related study, it was found out that the fraud tendencies of males in studies such as homework, projects and showing references were higher than males. Roig and Caso (2005) and Yangın (2009) also found in their researches that males have higher academic fraud tendencies than females. It was carried out that the reasons for preservice teachers for internet-triggered academic dishonesty did not differ significantly according to the gender variable. Özden and Özdemir Özden (2015) also confirmed in their research that female students were more agree with that some of the items in the data collection tool were related to academic dishonesty compared to male students. These results indicate that men tend to be more prone to internet-triggered academic dishonesty. This may have resulted from the fact that females are more disciplined and do their work meticulously.

In the conclusion, preservice teachers' internet-triggered academic dishonesty status differs significantly according to the grade variable. As maintained by this result, the higher grade level causes the more internet-triggered academic dishonesty cases. Similarly, Çetin (2007) states that as the grade level increases, the tendency of students to cheat increases. Tayfun and Yazıcıoğlu (2008) found in their research that as the grade level increases, the rate of those who believe that the faculty members overlook cheating and discriminate among students increase. Keçeci, Bulduk, Oruç, and Çelik (2011) declared that the juniors cheat more. The findings of Szabo and Underwood (2004), on the other hand, contradict the results of this study that the freshmen and sophomores plagiarize more than the juniors. Jordan (2001) revealed that freshmen do more academic dishonesty compared to upper grades. Ng, Davies, Bates, and Avellone (2003) pointed out that freshmen do not have enough knowledge about the definition of cheating and plagiarism, moreover, seniors are more aware of the opportunities they have to engage in academic dishonesty. De Lambert, Ellen, and Taylor (2006) explain that seniors commit more academic dishonesty by their relatively less acceptance of academic dishonesty behaviors of upper grade students. It is seen that the reasons for the internet-triggered academic dishonesty of the preservice teachers do not differ significantly according to the grade variable.

When similar studies are examined in the literature, it is an important finding that, similar to the results of this study, preservice teachers stated that they are not warned or punished by teaching staff, and that even if they know that they would be punished, they would continue to do behaviors that include academic dishonesty (Özden, Özdemir Özden, and Biçer, 2015). It is a similar result with the study of Köse and Arıkan (2011) which finds, students consider that they should not commit plagiarism, but if they do, they will most likely not be caught. Davis and Ludvigson (1995) stated that the pre-announcement of the punishment of students who commit academic dishonesty by the instructors has an effect on both female and male students. Ersoy

and Özden (2011) determined the role of the instructor on plagiarism behaviors and reached supportive findings. Accordingly, they drew attention to the fact that the instructor's explanations that she/he will check the resources of the submitted homework, give information about the sanctions she/he will copy homework on the Internet, and make explanations about internet ethics prevent the participants' tendency to plagiarize online. Bisping, Patron, and Roskelley (2008) pointed out the importance of students' awareness of which behaviors are considered within the scope of academic dishonesty and their consequences. Özenç Uçak and Ünal (2015) confirmed that academic unethical behaviors such as plagiarism should be prevented at the beginning of early student life, not to be waited until the university education to teach the students the science ethics, research methods and techniques; otherwise it will be late to gain ethical behavior. It has been found that preservice teachers' tendency to plagiarize online in their homework is related to variables originating from the instructor (Ersoy and Özden, 2011). Therefore, knowing the experiences of students in cheating and plagiarism in the preservice education process can give important clues about the future. Plagiarism of university students in general and preservice teachers in particular in their academic studies can be seen as a very important problem (Ersoy, 2014).

As a result, it was found that the preservice teachers have internet-triggered academic dishonesty behaviors and the reasons for this are caused by various cases. In terms of gender variable, it was determined that males exhibit more internet-triggered academic dishonesty behaviors. In terms of class variable, it was concluded that preservice teachers who study at upper grades commit more internet-triggered academic dishonesty. Based on these results, it can be said that preservice teachers should be informed about academic dishonesty from the first years of their beginning to university. It is important to apply dissuasive sanctions and it may be beneficial to present research ethics issues to students in a more comprehensive way by expert faculty members. Additionally it may be suggested to researchers to conduct qualitative research on internet-triggered academic dishonesty cases and on the reasons why male pre-service teachers are more likely to commit academic dishonesty.

References

Akbulut, Y., Şendağ, S., Birinci, G., Kılıçer, K., Şahin, M. C., & Odabaşı, H. F. (2008). Exploring the types and reasons of Internet-triggered academic dishonesty among Turkish undergraduate students: Development of Internet-Triggered Academic Dishonesty Scale (ITADS). *Computers & Education, 51*, 463-473. doi:10.1016/j.compedu.2007.06.003

Aluede, O., Omoregie, E. O., & Osa-Edoh, G. I. (2006). Academic dishonesty as a contemporary problem in higher education: How academic advisers can help. *Reading Improvement, 43*(2), 97-106.

Bisping, T. O., Patron, H., & Roskelley, K. (2008). Modeling academic dishonesty: The role of student perceptions and misconduct. *Journal of Economic Education, 38*, 4-21. doi:10.3200/JECE.39.1.4-21.

Chapman, K. J., Davis, R., Toy, D., & Wright, L. (2004). Academic integrity in the business school environment: I'll get by with a little help from my friends. *Journal of Marketing Education, 26*, 236-249.

Cicutto, L. (2008). Avoiding the peril in scientific writing. *Chest, 133*, 579-581.

Creswell, J.W. (2013). *Research design: qualitative, quantitative, and mixed methods approaches.* (4th Ed.). London: SAGE Publications.

Crown, D.F., & Spiller, M.S. (1998). Learning from the literature on collegiate cheating: A review of empirical research. *Journal of Business Ethics, 17*, 683–700. doi.org/10.1023/A:1017903001888

Çakmak, N. (2015). Undergraduates' Misconceptions Concerning Plagiarism. *Turkish Librarianship, 29*(2), 212-240.

Çetin, Ş. (2007). Analysis of the practice of cheating of university students in terms of different variants. *National Education, 175*, 129-142.

Davis, S. F., & Ludvigson, H. W. (1995). Additional data on academic dishonesty and a proposal for remediation. *Teaching of Psychology, 22,* 119-121. doi: 10.1207/s15328023top2202_6.

de Lambert, K., Ellen, N. & Taylor, L. (2006). Chalkface challenges: a study of academic dishonesty amongst students in New Zealand tertiary institutions. *Assessment & Evaluation in Higher Education, 31*(5), 485-503.

Ersoy, A. (2014). I was not aware ı plagiarized from online resources: A phenomenological research. *Pamukkale University Journal of Education, 35*(1), 47-60.

Ersoy, A., & Özden, M. (2011). The views of teacher candidates regarding the role of instructor in plagiarizing from Internet in their assignments. *Elementary Education Online, 10*(2), 608-619.

Gabriel, T. (2010, August 10). Plagiarism lines blur for students in digital age. New York Times, Retrieved from www.nytimes.com/2010/08/02/education/ 02chcat.html on 07.07.2020

Gerdeman, D. R. (2000). Academic dishonesty and the community college.Los Angeles: Eric Digest. Retrieved from https://files.eric.ed.gov/fulltext/ED447840.pdf on 15.08.2020

Jordan, A. E. (2001). College student cheating: The role of motivation, perceived norms, attitudes, and knowledge of institutional policy. *Ethics & Behavior, 11*(3), 233-247. doi:10.1207/S15327019EB1103_3.

Juyal, D., Thawani, V., & Thaledi, S. (2015). Plagiarism: An egregious form of misconduct. *North American Journal of Medical Sciences, 7*(2), 77-80.

Kadı, A., Baytekin, O. F., & Arslan, H. (2016). Academic dishonesty tendencies and values of teacher candidates. *Journal of Higher Education and Science, 6*(3), 396-401.

Keçeci, A., Bulduk, S., Oruç, D., & Çelik, S. (2011). Academic dishonesty among nursing students: A descriptive study. *Nursing Ethics, 18*(5), 725-733. doi:10.1177/0969733011408042.

Kıral, B., & Saracaloğlu, S. (2018). The relationship between academic dishonesty tendency and fear of negative evaluation. *YYU Journal of Education Faculty, 15*(1), 323-359.

Köse, Ö., & Arıkan, A. (2011). Reducing plagiarism by using online software: An experimental study. *Contemporary Online Language Education Journal, 1,* 122-129.

Ledesma, R. G. (2011). Academic dishonesty among undergraduate students in a Korean university. *Research in World Economy, 2*(2), 25-35.

Lin, C. S., & Wen, L. M. (2007). Academic dishonesty in higher education: A nationwide study in Taiwan. *Higher Education, 54*(1), 85-97.

McCabe, D. L., Feghali, T., & Abdallah, H. (2008). Academic dishonesty in the middle east: İndividual and contextual factors. *Research in Higher Education, 49,* 451-467.

Ng, H. W. W., Davies, G., Bates, I., & Avellone, M. (2003). Academic dishonest among pharmacy students: Investigating academic dishonesty behaviours in undergraduates. *Pharmacy Education, 3*(4), 261-269. doi: 10.1080/1560221031000164337 5

Odabaşı, H. F., Birinci, G., Kılıçer, K., Şahin, M. C., Akbulut, Y., & Şendağ, S. (2007). Academic dishonesty: Getting easier with ınternet and ICT. *Anadolu University Journal of Social Sciences, 7*(1), 503-518.

Ömür, Y. E., Aydın, R., & Argon, T. (2014). Relationship Between Prospective Teachers' Fear of Negative Evaluation and Their Academic Dishonesty Tendencies. *Journal of Education and Humanities, 5*(9), 131-149.

Özden, M., & Özdemir Özden, D. (2015). Defining academic dishonesty behaviors according to pre-service teachers. *Journal of Higher Education and Science, 5*(1), 88-98.

Özden, M., Özdemir Özden, D., & Biçer, B. (2015). Academic dishonesty: The views and experiences of teacher candidates. *Mersin University Journal of the Faculty of Education, 11*(2), 505-525.

Özenç Uçak, N. Ö., & Ünal, Y. (2015). Hacettepe Üniversitesi bilgi ve belge yönetimi bölümü öğrencilerinin akademik sahtekârlık ve intihal konusundaki görüşleri. Retrieved from http://openaccess.hacettepe.edu.tr:8080/xmlui/bitstream/handle/11655/11765/32.pdf?sequence=1&isAllowed=y on 10.08.2020

Qualls, R.C., Figgars, L., & Gibbs, D. (2017). The relationship among childhood discipline, adult attachment, and academic dishonesty in college students. *College Student Journal, 51*, 7-12.

Roig, M., & Caso, M. (2005). Lying and cheating: Fraudulent excuse making, cheating, and plagiarism. *The Journal of Psychology, 139*(6), 485-494. doi.org/10.3200/JRLP.139.6.485-494

Szabo, A., & Underwood, J. (2004). Cybercheats: Is information and communication technology fuelling academic dishonesty? *Active Learning in Higher Education, 5*(2), 180-199. doi:10.1177/1469787404043815

Taşgın, A., Kıncal, R. Y., Küçükoğlu, A., & Ozan, C. (2019). The relationship between prospective teachers' attitudes towards cheating and academic dishonesty tendencies. *AJESI - Anadolu Journal of Educational Sciences International, 9*(2), 608-639.

Tayfun, A., & Yazıcıoğlu, İ. (2008). An investigation on the perspectives of the students on cheating. *The Journal of Turkish Educational Sciences, 6*, 375-393.

Vartiainen, T., & Siponen, M. T. (2002). A study of moral problems in computer usage and its ımplications for computer ethics education. Proceedings of the Sixth Pacific Asia Conference on Information Systems (PACIS-2002). Retrieved from http://www.pacisnet.org/file/2002/049.PDF on 20.08.2020

Yangın, S. (2009) Attitudes and ideas of candidate primary school teachers towards copying. *Balıkesir University The Journal of Social Sciences Institute, 12*(21), 46- 55.

International Journal of Educational Studies and Policy (IJESP)

Volume: 2, Issue: 1, May 2021

The Effect of Reading with PQRST Technique: Intergroup Comparison

Fatih Aygören[1] Kemal Oğuz Er[2]

ABSTRACT

The purpose of this study was to investigate the effect of reading with PQRST technique on the recalling levels of high school senior students. Research grounded on quantitative paradigm. Experimental model used with experimental and control groups with pre-test post-test design. Direct comparison method was implemented. Success of reading recall is dependent variable, *PQRST* and *normal reading* applications are independent variables. According to the results of homogeneity of variance test, data were found to be homogeneous ($p>.05$). The data obtained from the pretest-posttest results were found normally distributed *(Mean=4.06, Median=4.00, Mode=5.00;* ± 1); thus, parametric tests were used to analyze the data. The data were analyzed with independent samples t test. Thirty-two participants were divided into experimental and control groups and read the same text with two different ways. The experimental group read with PQRST, the control group read normally. It was found that the group studying with PQRST did not make any difference in comparison to normal reading in the immediate recall. However, in delayed recall, participants who read with PQRST recalled statistically better than the group who read normally. In addition, there was no statistically significant difference between reading normally and reading with PQRST, in terms of gain scores

Keywords: PQRST, SQ3R, reading, recall

Article History: Received 27.11.2020 **Accepted 05.05.2021**

Cite as: Aygören, F. & Er, K. O. (2021). The effect of reading with PQRST technique: intergroup comparison. *International Journal of Educational Studies and Policy, 2*(1), 15-24.

.

[1]Corresponding Author: Dr. Fatih Aygören, Balıkesir Pegem Academy, e-mail: faygoren@hotmail.com
ORCID: 0000-0002-8953-777
[2]Prof. Dr. Kemal Oğuz Er, University of Balıkesir, Faculty of Education, e-mail: keoguzer@gmail.com
ORCID: 0000-0001-6098-2067

Introduction

Reading ability is one of the basic elements of quality education (Siah, 2010). This ability is necessary to perform daily life activities such as reading newspapers, reading textbooks, reading novels, reading user manuals, or reading web pages. That is to say, reading is an elementary need for life (Trauzettel-Klosinski, 1997). However, the important detail underlying the ability to read is to be able to read with aware (Estes, 1971). Not remembering or not understanding what you read can turn reading into a worthless ability. Diversifying reading processes with different applications, rather than normal reading, increases efficiency (Aygören, 2020). In this regard, rather than standard/normal reading, more active reading strategies increase retention and educational achievement (Gentile, 2003; Dale, 1969). One of the most effective (and old) reading strategies that have come to the forefront in recent years for effective reading is the SQ3R developed by Robertson in 1961 (Tadlock, 1978; Roe, 2011). Its roots go back to 1940s. SQ3R is a reading strategy that recommends students to read by following the stages of *Survey, Question, Read, Recite* and *Review* (Artis, 2008). The students look at the topics to get an idea about the text (survey); they generate questions about these topics and activate their prior knowledge (question); they then read the text and seek answers to the questions they have created; then, the students answer their own questions in their own words (recite); finally review all the information they have obtained (review) (Jairam, 2013; Martin, 1991). The new version of Robertson's proven SQ3R strategy, again developed by Robertson (1971), is the PQRST (*Preview, Question, Read, State, Test*) technique. In summary, PQRST is an improved version of SQ3R, but the last phase has been revised as a test rather than a review (Aygören, 2020). The steps of the PQRST technique are as follows (Wilson, 2009):

1. Preview: A general overview of the passage or text, i.e. a survey. It is just a few seconds of reading, superficial scanning or defining the main parts (Simatupang & Sihombing, 2012). These are applications such as reading the foreword, examining the table of contents, reading the chapter summaries, examining the titles, pictures, graphics, or charts (Turkington, 2000).

2. Question: Asking the key questions about the text. 5W1H may be used (Turkington, 2001). This step should be completed before reading the whole text. It is asking questions about what the student wants to know about the text (Simatupang & Sihombing, 2012). For example, suppose we are going to read a text about the "banning of the book named 1984". After a quick preview of the text, the student asked, "Why do people ban some books?", "Why was George Orwell's 1984 book banned?", "What did Orwell say about 1984?" can ask questions like. Students who ask such questions now have a purpose for reading. 'P' and 'Q' stages serve as a guide in the context of preparing the brain for what to read (Wormeli, 2005). The 5N1K technique can be used for students who have difficulty preparing questions in the questioning stage, and this application can make the stage clearer (Aygören, 2020). Questions to be asked to the important points of the text such as what happened, how the incident happened in the text, who was involved in the event can be used (Turkington & Harris, 2001).

3. Read: Reading the text fully and carefully to answer the questions. If possible, it should be read twice. Reading the text twice improves comprehension. However, there may not be much opportunity for this in the real world. Generally, people try to finish the job in one reading (Wormeli, 2005). When reading the text for the first

time, no notes should be taken or practices such as underlining on the first reading should not be done. Because it is not easy to understand the important points in the first reading. If a second reading is made, then the important points that are emphasized can be highlighted, highlighted, and notes can be taken (Turkington, 2000).

4. State: Expressing the answers to the questions. The text can be read again if it is necessary. It is the student's summary of what he has read and expressing the main idea or theme (Simatupang & Sihombing, 2012). There are usually two types of main ideas / themes here. The main idea / themes, the first belonging to the author of the text, and the second to the readers. In the PQRST technique, instead of a general title, they are asked to find a main idea / theme for each sub-chapter / paragraph (Wormeli, 2005). At this stage, key questions can be answered out loud. The student can ask himself these questions. He / she can express or reflect on important points that he / she emphasizes. Half the time of the application of the PQRST technique can be spent at this stage (Turkington, 2000).
5. Test: Testing the information to be stored in long-term recall. Students can question themselves (Turkington, 2000). It is the student's self-test with questions or teaching another person what he has learned (Simatupang & Sihombing, 2012; Wormeli, 2005). At this stage, the student tests himself whether S/he can actually obtain the information. It is the student's self-questioning before a test. It is a study session about the text. The person questions the information obtained by himself (Turkington, 2000). It makes preparation to be able to respond appropriately to the questions that the teacher might ask (Ahuja & Ahuja, 2007).

When the application steps of SQ3R and PQRST technique are examined in terms of basic learning theories, it can be said that pre-reading and asking pre-questions have functions like advance organizers, thus more meaningful and permanent learning is realized (Ausubel, 1960).

In the literature, many studies on SQ3R can be found (Tadlock, 1978; McCormick, 1991; Artis, 2008; Carlston, 2011; Johns, 2013; Donald, 2014). Some studies can be found about PQRST but most of them are related to the field of psychology and neurophysiology (Wilson, 1987; Ciaramelli, 2015; Ruggeri, 2005). One of the most precise studies of the technique is Wilson's single-subject experimental study from 1987. Wilson read six new articles with an amnesia patient for eight days. Eight of the articles were read with the PQRST and eight with normal reading (Wilson, 1987). The order of text-reading techniques changed every day. Following the reading session, tests with one immediate delay and the other with a delay of 30 minutes were applied and the results were compared. In his study, Wilson found out that reading with the PQRST were more effective for recalling than traditional readings. According to Wilson, the PQRST found better short- and long-term recall results than traditional and multiple repetitive reading. Although the study is remarkable, it is unclear what results will be achieved when the same practices are applied to an ordinary student instead of a patient with amnesia. This uncertainty is the starting point of this research.

Therefore, it is thought that the research related to PQRST technique, will contribute to the educational sciences literature. It is important to investigate how effective PQRST can be in terms of more effective reading and recall of students. In this study, it is aimed to investigate the effects of PQRST technique, which is relatively new in educational sciences, on reading recall.

In the light of this thought and purpose, answers for the following questions was sought:

1. Is there any significant difference between the reading with *PQRST* and *normal reading*, in recalling immediately?

2. Is there any significant difference between reading with *PQRST* and *normal reading*, in recalling with delay?

3. Is there any significant difference between reading with *PQRST* and *normal reading*, in gain scores?

Method

Research grounded on quantitative paradigm. In the study pre-test-post-test quasi-experimental design has been utilized. The quasi-experimental approach, pretest-posttest and comparison group design is the measurement of the participants about the dependent variable before and after the experimental research (Karasar, 1999). Direct comparison method was implemented. Success of reading recall is dependent variable, *PQRST* and *normal reading* applications are independent variables. When homogeneity of variance test was implemented, the results were found to be homogeneous ($p>.05$). The data obtained from the pretest-posttest results were found normally distributed *(Mean=4.06, Median=4.00, Mode=5.00;* ± 1), parametric tests were used to analyze the data. In this regard, in order to find answers to the research questions, the data were analyzed with independent samples t test.

Participants

32 students at the age of 16-17-years attending university preparatory course joined to the study. All of the students were in the last year of high school and they all continued to equiponderant education. They come from different socio-economical areas of İzmir. Two groups were formed as experimental and control units. Group assignments made randomly from class list. The grouped form of the participants was as follows:

Table 1. The grouped form of the participants

Groups	**N**
Experimental group (Reading the test with PQRST)	16
Control group (Normal reading)	16

Materials

Experimental and control groups were taught the same text literally. The texts that may be appropriate for the research were investigated. The text already used by Aygören (2020) in a single-subject study on PQRST was considered appropriate for this research. A 500-word column titled 'Işıkla ileti sistemi: LiFi internet (Messaging system by light: Internet via LiFi)' of Edip Emil Öymen, who is an educator, academician, and a writer, was chosen. In the research, a text that does not go into political or controversial issues, but that can still attract the attention of the student and that can be beneficial was searched. As a result of this search, the column of educator, academician, and writer Edip Emil Öymen was selected and used with the permission of the author. The text has not been tampered with and has not been corrected. As a result of the examinations made before the research, no obvious grammatical, spelling, information error or

similar problems were encountered in the texts of the author, therefore the author's column was preferred. In this context, the reasons for using columns in research can be explained as follows:

- The author's educational identity and academic background,
- Spelling and grammar to be correct,
- Having clear texts,
- Striking articles on education and technology,
- The text is up-to-date and impartial.

The other reason for preferring this text was that necessary controls were already checked, and pretests and posttests were ready. In addition, the text to be read had no connection with the course subjects of participant students. Ausubel advocates working with unusual texts that do not relate to the student's interests, lessons, or prior knowledge (Ausubel, 1960). Other reasons for the selection of the text were: spelling and grammatical smoothness, comprehensible language, current and impartial issue, and being irrelevant to political issues.

Pretest-Posttest questions

In the research, a ten-question multiple-choice pretest and an equivalent ten-question multiple-choice posttest, about the text, were used. Tests, like the text, were taken from Aygören's (2020) study. According to Bloom's revised taxonomy, the test questions are at the remember level. The cognitive structure of the questions is related to recognizing and recalling in the Bloom's revised taxonomy (Krathwohl, 2002). Expert opinions were obtained in terms of the suitability of the test questions and then tests were prepared.

Scoring

In the research process, the success of reading recollection was emphasized. Accordingly, pretest and posttest scores evaluated in order to determine the success of retention. Incorrect answers were not counted. Only correctly remembered answers were considered. Retention questions were scored between 0-10. Gain scores scored between -10 and +10.

Procedure

The empirical research process lasted one hour. At process same text was read by both groups. The Experimental group read with *PQRST technique* and control group read with *normal reading*. Right after the reading process, ten-question test (*pretest*) was answered by the groups. The other test (*posttest*) was done after 30 minutes. Reading process took 10-12 minutes; pretest took about 5 minutes; 30 minutes delay time; posttest took approximately 5 minutes. The results of the tests after reading analyzed and compared by the researchers.

Results

In this section, the findings of the research are presented. Information summarizing the empirical process can be seen in Table 2. Additionally, Table 3 shows the statistical information of the results obtained by experimental (reading with PQRST) and control (normal reading) groups.

Table 2. Pretest, Posttest, and gain score findings

Exp. Group	Pretest	Posttest	Gain scores	Control Group	Pretest	Posttest	Gain scores
Participant 1	6/10	3/10	-3	Participant 1	2/10	5/10	3
Participant 2	8/10	6/10	-2	Participant 2	6/10	5/10	-1
Participant 3	6/10	5/10	-1	Participant 3	7/10	4/10	-3
Participant 4	6/10	6/10	0	Participant 4	6/10	3/10	-3
Participant 5	4/10	6/10	2	Participant 5	5/10	3/10	-2
Participant 6	2/10	2/10	0	Participant 6	1/10	2/10	1
Participant 7	3/10	4/10	1	Participant 7	2/10	2/10	0
Participant 8	4/10	3/10	-1	Participant 8	4/10	5/10	1
Participant 9	2/10	5/10	3	Participant 9	3/10	1/10	-2
Participant 10	3/10	6/10	3	Participant 10	2/10	1/10	-1
Participant 11	4/10	5/10	1	Participant 11	3/10	3/10	0
Participant 12	2/10	5/10	3	Participant 12	7/10	5/10	-2
Participant 13	6/10	5/10	-1	Participant 13	5/10	6/10	1
Participant 14	4/10	6/10	2	Participant 14	5/10	3/10	-2
Participant 15	5/10	3/10	-2	Participant 15	6/10	4/10	-2
Participant 16	6/10	4/10	-2	Participant 16	4/10	4/10	0

When a preliminary review is made about the data in Table 2; it is seen that, in the experimental group reading with PQRST, six participants reduced the number of correct answers, eight participants increased the number of correct answers. There was no change in two participants' correct answers. In the control group who read normally; nine participants reduced the number of correct answers and four participants increased the number of correct answers. There was no change in three participants' correct answers.

Table 3. Group statistics

	Groups	N	Mean	Std. Deviation	Std. Error Mean
Pretest	Experimental group	16	4.4375	1.78769	.44692
	Control group	16	4.2500	1.91485	.47871
Posttest	Experimental group	16	4.6250	1.31022	.32755
	Control group	16	3.5000	1.50555	.37639
Gain scores	Experimental group	16	.1875	2.00728	.50182
	Control group	16	-.7500	1.69312	.42328

When a preliminary review is made about the data in Table 3; in the experimental group reading with PQRST, the mean of pretest's correct answers was found to be 4.4, and also posttest's correct answers' mean was found to be 4.6. On the other hand, in the control group who read normally, the mean of pretest's correct answers was found to be 4.2, and also posttest's correct answers' mean was found to be 3.5. That is, there is a decrease of 0.7.

For the purpose of the study, pretest, posttest and gain score results of the experimental group using PQRST and the control group reading normally were compared. In this regard, the data were analyzed with independent samples t test. t test results can be seen in Table 4.

Table 4. t-test Results

	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Pretest Differences	.286	30	.777	.18750	.65491
Posttest Differences	2.255	30	.032	1.12500	.49896
Gain scores' Differences	1.428	30	.164	.93750	.65650

In terms of the first research question, 'Is there any significant difference between reading with *PQRST* and *normal reading*, in recalling immediately?', it was revealed that there is no significant difference was found between the two groups (.777). In this situation, it was concluded that there was no difference between PQRST and normal reading in terms of recalling the reading immediately.

The second question that is tried to be answered for the purpose of the research, 'Is there any significant difference between reading with *PQRST* and *normal reading*, in recalling with delay?', it was shown that there is a significant difference was found between the two groups (.032). In the light of these findings, it was concluded that reading with PQRST had a better effect on recalling in long-term than reading normally.

According to the third question of the research, 'Is there any significant difference between reading with PQRST and *normal reading*, in gain scores?', it was seen that there is no significant difference was found between the two groups (.164). In the light of the data, there is no significant difference between PQRST and normal reading.

Discussion, Conclusion and Suggestions

In the immediate recall, the reading style does not make any difference. The reasons why there was no difference, in both groups, may be that the students did not motivated sufficiently, that they did not understand PQRST technique enough, that the time to assimilate the read text was inadequate or that the reading techniques do not make a difference in terms of remembering in immediate recall. Wilson (1987) who worked on an amnesia patient, found that the reading with PQRST was not significantly effective than reading normally, in terms of recalling in the immediate. Ciaramelli et al. (2015) performed a very similar study on patients (with prefrontal cortex injury) and found that the reading with PQRST was significantly effective. In a similar study by Aygören (2020) on a single-subject but normal student, it was concluded that normal reading was more successful in the immediate recall. In Aygören's study, however, the student read one time with PQRST and four times normally. It should not be overlooked.

Another result of this study showed that the used PQRST technique helped the readers to remember better in delayed recall. Similar results were found in Wilson (1987), Ciaramelli et al. (2015) and Aygören (2020). It is evident that PQRST is effective in the delayed recall. The reason for these results can be considered as more active reading process of PQRST readers. There are many studies in the literature that prove the effects of PQRST on reading comprehension (Chapman, 1976; Simatupang, 2012; Miqawati, 2014; Apriliaswati, 2014; Malia, 2015; Duran, 2019). Understanding level is a higher level of remembering according to Bloom's taxonomy. A student who comprehends will remember well. According to Bloom, you need to achieve the previous step in order to move to the upper levels (Bloom, 1956). It has a cumulative hierarchy. In other words, if you can move to the upper level, you have already achieved the lower level. In this context, these studies, which prove the effects of PQRST on comprehension, can be interpreted as the effect of PQRST on recall.

Results showed that, reading styles does not differ much in terms of gain scores. The reason why there was no difference between the two groups in terms of gain scores could be considered as the students in the experimental group were not yet accustomed to PQRST technique and they could not get rid of the normal reading habits of years. However, after time has passed, it has been found remarkable that reading with PQRST increased the number of correct answers recalled. When the data in Tables 2 and 3 handled carefully, in terms of gain scores, we can see that scores of PQRST increased (+0.4) while the scores in normal reading were reduced (-1.7). Under normal circumstances, knowledge tends to decrease over time but when reading with PQRST, the remembered knowledge is increased. A similar finding was obtained in Aygören's (2020) study. These results are promising in terms of PQRST technique. This finding may be the subject of different studies. The findings of this study leave some research questions to be investigated in the future studies. *Firstly*, in the future research, it may be suggested that students in the experimental group get familiar with the technique by making trial implementation before the actual implementation and then it can be suggested to start experimental implementation. Thus, it would be possible to understand whether how much PQRST is effective on recalling in immediate recall. *Secondly*, in order to get better understanding about the effect of PQRST on both immediate recall and delayed recall, it may be suggested that more comprehensive research with different groups of students should be done on more than one text. *Thirdly*, it is recommended to carry out an experimental process after the students are familiar with the PQRST technique by performing such implementations more than one and also testing very-long-term recall.

References

Apriliaswati, E. R. (2014). Teaching Reading Comprehension of Descriptive Text Through PQRST Technique Based on Whole Language Approach. *Journal Pendidikan dan Pembelejaran, 3*(9), 1-10.

Artis, A. B. (2008). Improving Marketing Students' Reading Comprehension with the SQ3R Method. *Journal of Marketing Education, 30*(2), 130-137.

Ausubel, D. P. (1960). The Use of Advance Organizers in the Learning and Retention of Meaningful Verbal Material. *Journal of Educational Psychology, 81*(5), 267-272.

Aygören, F. (2020). The Effect of PQRST Technique on Recalling What You Read. *Elementary Education Online, EEO, 19*(1).

Bloom, B. S. (1956). *Taxonomy of Educational Objectives, The Classification of Educational Goals, Handbook 1: Cognitive Domain.* New York: David Mckay.

Carlston, D. L. (2011). Benefits of Student-Generated Note Packets. *Teaching of Psychology, 38*(3), 142-146.

Chapman, C. A. (1976). Teaching Comprehension to the Disabled Reader. *Journal of Reading, 20*(1), 37-42.

Ciaramelli, E. N. (2015). Improving Memory Following Prefrontal Cortex Damage with the PQRST Method. *Frontiers in Behavioral Neuroscience, 9*, 1-9.

Dale, E. (1969). *Audio Visual Methods in Teaching: Third Edition.* New York: Holt, Rinehart&Winston.

Donald, S. M. (2014). The SQ3R Method in Grade Seven. *Journal of Reading, 11*(1), 33-43.

Duran, E. &. (2019). An Action Research on the Development of Text Summarising Skills: PQRST Technique. *Milli Eğitim Dergisi, 48*(221), 215-230.

Estes, T. H. (1971). A Scale to Measure Attitudes Toward Reading. *Journal of Reading, 15*(2), 135-138.

Gentile, D. A. (2003). Violent Video Games: The Newest Media Violence Hazard. In *Media Violence and Children: A Complete Guide for Parents and Professionals* (pp. 131-152). Westport, Connecticut; London: Praeger.

Jairam, D. K.-K.-H. (2013). SOAR Versus SQ3R: a Test of Two Study Systems. *Instructional Science, 32*(3), 409-420.

Johns, J. L. (2013). The SQ3R Study Technique: A Forgotten Research Target. *Journal of Reading, 23*(8), 705-708.

Karasar, N. (1999). *Bilimsel Araştırma Yöntemi* (9th Edition) Ankara: Nobel Yayın Dağıtım.

Krathwohl, D. R. (2002). A Revision of Bloom's Taxonomy: An Overview. *Theory into Practice, 41*(4), 212-218.

Malia, N. (2015). Using PQRST Strategy to Improve Students' Reading Comprehension of Hortatory Exposition Texts at Grade XI IPS of MA Diniyah Puteri, Pekanbaru. *Journal English Language Teaching (ELT), 1*(1), 1-6.

Martin, D. (1991). *How to be a Successful Student: Second Edition.* La Honda, CA: Marin Trails Publishing.

McCormick, S. &. (1991). Can SQ3R Facilitate Secondary Learning Disabled Students' Literal Comprehension Of Expository Test? Three Experiments. *Reading Psychology, 12*(3), 239-271.

Miqawati, A. H. (2014). The PQRST Strategy, Reading Comprehension, and Learning Styles. *Indonesian Journal of Applied Linguistics, 4*(1), 123-139.

Roe, B. S.-H. (2011). *Secondary school literacy instruction.* Wadsworth: Cengage Learning.

Ruggeri, M. (2005). Effectiveness of 'PQRST' Strategy in the Rehabilitation of Story Recall Disorders. *Life Span and Disability, 8*(2), 163-184.

Siah, P. C. (2010). The Value of Reading and the Effectiveness of Sustained Silent Reading. *The Clearing House: A Journal of Educational Strategies, Issues and Ideas, 83*(5), 168-174.

Simatupang, L. &. (2012). The Effect of PQRST Method on Students' Reading Comprehension of Descriptive Text. *Journal of English Language Teaching of FBS Unimed, 1*(2), 1-19.

Simatupang, L. ve Sihombing, L. (2012). The Effect of PQRST Method on Students Reading Comprehension of Descriptive Text, Journal of English Language Teaching of FBS Unimed, 1, 2. http://jurnal.unimed.ac.id/2012/index.php/eltu/article/view/399 It was downloaded from this web site on 03.08.2017.

Tadlock, D. F. (1978). SQ3R Why It Works, Based on an Information Processing Theory of Learning. *Journal of Reading, 22*(2), 110-112.

Trauzettel-Klosinski, S. (1997). Eccentric Fixation with Hemianopic Field Defects: A Valuable Strategy to Improve Reading Ability and an Indication of Cortical Plasticity. *Neuro-Ophthalmology, 18*(3), 117-131.

Turkington, C. A. (2000). *12 Steps to a Better Memory, Pocket Books.* New York, NY: A Division of Simon&Schuster, Inc.

Turkington, C. A. (2001). *The Encyclopedia of Memory and Memory Disorders: Second Edition.* New York: Facts on File, Inc.

Wilson, B. A. (1987). Single-Case Experimental Design in Neuropsychological Rehabilitation. *Journal of Clinical and Experimental Neuropsychology, 9*(5), 527-544.

Wilson, B. A. (2009). *Memory Rehabilitation: Integrating Theory and Practice.* New York; London: The Guilford Press.

Wormeli, R. (2005). Summarization in Any Subject: 50 Techniques to Improve Student Learning. Alexandria, Virginia, USA: ASCD (Association for Supervision and Curriculum Development).

International Journal of Educational Studies and Policy (IJESP)

Volume: 2, Issue: 1, May 2021

Metaphoric Perceptions of Teacher Candidates about COVID-19

Sevgi Bektaş Bedir[1] Gülay Bedir[2]

ABSTRACT

This study aimed to determine the metaphors that teacher candidates created for COVID-19. In this study, a phenomenological research design, one of the qualitative research methods, was used. The study group consisted of 168 teacher candidates (111 female, 57 male) who attended a state university in the 2019-2020 academic year and volunteered to participate in the study. In this study, metaphors were collected from teacher candidates with a semi-structured form to determine their feelings and thoughts about COVID-19. The first part of the form aimed to collect demographic information. In the second part, to determine the metaphorical perceptions of teacher candidates about COVID-19, they were asked to complete the blanks in the phrase, "COVID-19 is similar to ……. because ....." In this study, content analysis was employed to analyze the data collected through semi-structured forms. According to the findings regarding the data obtained, teacher candidates came up with 89 valid metaphors about COVID-19. The metaphors that teacher candidates frequently used were "reminder, gossip, warder, foe, ignorant person, atom bomb, love, cigarette, dragon and meteorite/meteor". The metaphors created by the teacher candidates about the COVID-19 pandemic were grouped under seven conceptual categories. These were "items/objects, natural events, animals/plants, actions/behaviors, abstract concepts, people, and professions".

Keywords: Teacher candidate, COVID-19 (coronavirus), metaphor, phenomenology

Article History: Received 31.12.2020 **Accepted 27.04.2021**

Cite as: Bektaş-Bedir, S. & Bedir, G. (2021). Metaphoric perceptions of teacher candidates about COVID-19. *International Journal of Educational Studies and Policy, 2*(1), 25-39.

.

[1]Corresponding Author: Dr. Sevgi Bektaş Bedir, Ministry of National Education, sevgibektasbedir@gmail.com, ORCID: 0000-0003-3794-9247

[2]Assoc. Prof. Gülay Bedir, Kahramanmaraş Sütçü İmam University, gulaybedir@hotmail.com, ORCID: 0000-0003-3488-6340

Introduction

Coronavirus disease 2019 (COVID-19) is an infectious disease caused by the most recently discovered coronavirus. This new virus and the disease have become known around the world since its outbreak in Wuhan, China in December 2019 (World Health Organization [WHO], 2020a). WHO declared COVID-19 as a pandemic on March 12, 2020 but added that it could be controlled (WHO, 2020b). Following this declaration, to prevent the spread of the disease in Turkey, a list of recommendations of the Ministry of Health about public transport, closed public places, accommodation facilities, restaurants, dormitories, nursing homes, and elderly care centers was published in a circular by the Ministry of National Education (MEB, 2020). Most governments around the world have temporarily closed educational institutions to control the spread of the COVID-19 pandemic. These nationwide shutdowns have affected more than 60% of the student population around the world (United Nations Educational, Scientific, and Cultural Organization [UNESCO], 2020a). Nearly 1.2 billion students around the world have been forced to receive distance education due to the suspension of face-to-face education (Li and Lalani, 2020). Studies suggest that school closures have been based on evidence that this application reduces the social contact between students and therefore disrupts transmission (Viner, Russell, Croker, Packer, Ward, Stansfield, Mytton, Bonel and Booy, 2020). UNESCO (2020b) has offered digital content and tools to make distance education more efficient and provided support to ensure continuity in education in disadvantaged regions.

Face-to-face education in Turkey as well as many countries has been suspended as a measure to prevent the spread of the COVID-19 pandemic. All formal and non-formal educational institutions of MEB, regardless of the level and type, were closed between March 16 and 23, 2020 under measures taken for the COVID-19 pandemic, and then the distance education process was launched as of March 23, 2020. In this context, the weekly school schedule was restructured, and the distance education process started at elementary, middle, and high school levels, including a compensatory program, on TV through Turkish Radio and Television Corporation (TRT) and on the Internet with the support of the Education and Information Network (EBA) (MEB, 2020). With the statement of the Council of Higher Education (YÖK), education in universities was also suspended for three weeks as of March 16, 2020 as a measure (YÖK, 2020a). Meanwhile, the "Road Map for Distance Education Practices during Pandemic", prepared by the "Commission for Digital Transformation of Higher Education" consisting of academicians from different universities within YÖK, was finalized. According to these arrangements of YÖK, universities would use synchronous or asynchronous distance education methods, the theoretical parts of the applied courses would be carried out through distance education, and a brief program would be implemented for the applied part of the courses. Regarding the measurement and the evaluation of the courses to be given on distance education, that is the testing process, universities were authorized to carry out their own evaluation program provided that they complied with a macro level calendar. In addition, the qualification exams, thesis monitoring committees, and thesis defenses in graduate programs would be conducted online, provided that universities have the necessary infrastructure, and these events can be recorded and audited. All these arrangements have been carried out in line with the decisions made by universities within their own academic calendars (YÖK, 2020b).

Distance Education Application and Research Centers are available in many universities in Turkey. During this process, YÖK opened a “Distance Education Application and Research Center” in 20 more universities (YÖK, 2020c). The term "distance education" was first

mentioned in the 1892 Catalog of the University of Wisconsin, and it was used for the first time in an article written in 1906 by the director of the same university (Adıyaman and MEBETG Directorate, 2001). Distance education is important in terms of removing geographical barriers (Ekici, 2003). It offers students the opportunity to participate in education wherever they are. However, the development of this opportunity depends on technological advances. Although technology plays the most determining role in distance education, the instructional outcomes of this type of education should be emphasized rather than the technology which it is based on (Koçer, 2001). Developing technology and globalizing world have brought innovations in education. The changes and differences between the past and the present have led a shift from an educational approach where knowledge is seen as an object transferred from teacher to student to an educational approach where students construct knowledge together under the guidance of the teacher (Keser, 2005). The current COVID-19 pandemic has greatly affected the mobility of all human activities, including the activities in education (Surani and Hamidah, 2020). It has made education dependent on technology and distance learning. Some studies on online education emphasize that students should take responsibility for their own learning and learn to control learning processes (Tok, Özgan and Döş, 2010). Although distance education is not a new phenomenon, the distance education process under pandemic conditions is a new experience for the whole world. During the Covid-19 pandemic, there is an increasing dependence on web-based technology (Alhumaid, Ali, Waheed, Zahid, and Habes, 2020). According to Adnan and Anwar (2020) administrations of schools, colleges and universities have opted for online classes as an alternative way of continuing education.

The pandemic process has had many positive and negative effects on all societies. It has changed people's perspectives on life, expectations for the future, and moods. All disciplines have been carrying out studies on the impact of the pandemic process on their fields in an effort to contribute to the process. Studies in the field of education have been investigating the effects of the process at all levels, including students, teachers, school programs, or educational administrators. Among these studies, metaphor studies draw attention (Aykutalp and Karakurt, 2020; Bozkurt, 2020; Craig, 2020; Dönmez and Gürbüz, 2020; Arı, and Arslan, 2020; Özmercan-Eminoğlu, Küçüktepe-Eminoğlu and Küçüktepe, 2020; Toquero, 2020). The Turkish Language Association [TLA] defines metaphor as using a word or concept in a way that means other than its accepted meaning. Arslan and Bayrakçı (2006) defines this concept as a powerful mental mapping-modeling mechanism that individuals use to make sense of their own world, as well as a tool that contributes to the mental concretization and visualization of abstract concepts. According to the definition by Aydoğdu (2008), metaphor is a kind of interpretation using analogies. In addition to these definitions, Yıldırım and Şimşek (2018) emphasize that metaphors facilitate data collection and analysis as well as providing a very robust and enlightening picture about the topic, the phenomenon, the event, and the case under investigation.

There are some metaphor studies on COVID-19 in the literature. Özmercan-Eminoğlu, Küçüktepe-Eminoğlu and Küçüktepe (2020) and Dönmez and Gürbüz (2020) studied COVID-19 metaphors in university students. Arı and Arslan (2020) studied this topic in secondary school students. Aykutalp and Karakurt (2020) emphasized the stigmatizing power of metaphors derived from COVID-19 in their study. Craig (2020) conducted a study on the pandemic and the metaphoric perceptions attributed to it. This study aimed to determine the metaphors that teacher candidates created for COVID-19. To achieve this goal, the following sub-goal was sought.

1. What are the metaphoric perceptions of teacher candidates about COVID-19?

Methods

This section of the study addresses the model and the study group of the study, data collection tools, and the methods of data analysis.

The model of the study

In this study, which was carried out to determine the metaphoric perceptions of teacher candidates, a phenomenological research design, one of the qualitative research methods, was used. With qualitative data, rich definitions and explanations can be made, events can be transferred chronologically, a cause-effect relationship can be observed, and efficient explanations can be obtained (Miles and Huberman, 1994). Phenomenology is one of the qualitative research methods used by researchers in the fields of education and social sciences to present realities based on the experiences of participants (Padilla-Diaz, 2015). Metaphors, on the other hand, are cases where the speaker says something but means something else (Bezuidenhout, 2001). According to Saban (2008), metaphors allow a certain phenomenon to be seen as another by enabling a person's mind to move from a certain style of comprehension to another. In this study, metaphors were used to describe an existing situation.

The study group

The study group consisted of 168 teacher candidates who attended a state university in the 2019-2020 academic year and volunteered to participate in the study. Of the participants, 111 (66%) were female and 57 (34%) were male. The distribution of the participants by school year was as follows: 92 (54.8%) juniors, 48 (28.6%) sophomores, and 28 (16.6%) seniors. The distribution of the participants by departments was as follows: 52 (30.9%) from Classroom Teaching, 40 (23.8%) from Mathematics Teaching, 38 (22.6%) from Turkish Language Teaching, 28 (16.7%) from Social Studies Teaching, and 10 (6%) from Physical Education Teaching.

Data collection tools

Metaphor is a powerful mental tool that an individual can utilize to understand and explain a highly abstract, complex, or theoretical phenomenon (Saban, 2008). In this study, metaphors were collected from students with a semi-structured form to determine their feelings and thoughts about COVID-19. During the development stage, the semi-structured form was submitted to the opinions of three experts, including two from educational programs and instruction and one from the field of measurement and evaluation. The first part of the form aims to collect demographic information. In the second part of the form, to determine the metaphorical perceptions of teacher candidates about COVID-19, they were asked to complete the blanks in the phrase, "COVID-19 is similar to……. because ....." The form was piloted to five teacher candidates. It was finalized by making necessary arrangements based on the opinions and the responses given to the questions during the pilot study phase.

Analysis of the study data

In this study, the content analysis was employed to analyze the data collected through semi-structured forms. The main purpose of the content analysis is to reach the concepts and relationships that can explain the data collected. The data were organized according to categories and codes, and the findings were interpreted accordingly (Yıldırım and Şimşek, 2018). Miles and Huberman's reliability formula was run to calculate the reliability of the categories created for the data. The researchers, who reached a consensus on the results of the individual analyses,

calculated the inter-rater reliability using the "Agreement/ (Agreement + Disagreement) x100" formula and reached a 92% agreement in the analyses. This rate was accepted as reliable for the study (Miles and Huberman, 1994). As a result of the analysis of the data, seven main categories and various metaphors emerged. The categories and the codes created were presented in tables with frequency and percentage values. Also, direct quotations from teacher candidates' metaphors were presented. The opinions of the teacher candidates were directly reported, and the sex and the order of the person submitting the related opinion were given using a code such as "F, 14; M, 168".

Findings

This section presents the metaphors created by the teacher candidates in the study group about COVID-19, the categories under which these metaphors were grouped in terms of similarities, and direct quotations from the participants' statements about the metaphors they created.

The sub-problem of the study was "What are the metaphoric perceptions of teacher candidates about COVID-19?" Table 1 presents findings regarding the data obtained.

Table 1. Metaphoric perceptions of the teacher candidates about COVID-19

No	Metaphor	f	No	Metaphor	f	No	Metaphor	f
1.	Reminder	10	**31.**	Mud	1	**61.**	Hot weather of Urfa city	1
2.	Gossip	8	**32.**	Darkness	1	**62.**	Evil	1
3.	Warder	7	**33.**	Rain	1	**63.**	Separation	1
4.	Foe	7	**34.**	Thief	1	**64.**	Alarm clock	1
5.	Ignorant person	5	**35.**	Painful experiences	1	**65.**	Ink	1
6.	Atom bomb	5	**36.**	Imperialism	1	**66.**	Hatred	1
7.	Love	5	**37.**	Acid rain	1	**67.**	African fly	1
8.	Cigarette	5	**38.**	Homesickness	1	**68.**	Virus	1
9.	Dragon	4	**39.**	Ant	1	**69.**	Bad friend	1
10.	Meteorite/meteor	4	**40.**	Snowball	1	**70.**	Judge	1
11.	Swamp	3	**41.**	Teacher	1	**71.**	Consumer	1
12.	Chewing gum	3	**42.**	Map	1	**72.**	User manual	1
13.	Domino	3	**43.**	Searching water in the desert	1	**73.**	Truck with a brake failure	1
14.	Chemical cleaning material	3	**44.**	Food chain	1	**74.**	Black swan	1
15.	Affection	3	**45.**	Gambling	1	**75.**	Mirror	1
16.	Regret	3	**46.**	Scorpion	1	**76.**	Impact	1
17.	Earthquake	3	**47.**	Hunter	1	**77.**	Serial killer	1
18.	Taking the KPSS test	3	**48.**	Safety belt	1	**78.**	Ivy	1
19.	War	3	**49.**	Vulture	1	**79.**	Terrorist	1
20.	Cruel person	3	**50.**	Wolf	1	**80.**	Balloon	1
21.	Natural disaster	2	**51.**	Cage	1	**81.**	Corn	1
22.	Time	2	**52.**	Equality	1	**82.**	Life coach	1
23.	Glass	2	**53.**	Hurricane	1	**83.**	Knowledge	1
24.	Unfriendly ruler	2	**54.**	Fire	1	**84.**	Hooliganism	1
25.	Insidious human	2	**55.**	Happiness	1	**85.**	Anopheles	1
26.	Dinosaur	2	**56.**	Bag	1	**86.**	Chance	1
27.	Living	2	**57.**	Pomegranate	1	**87.**	Seeker in hide-and-seek game	1
28.	Torturing	2	**58.**	Chinese	1	**88.**	Pollen	1
29.	Treeless world	2	**59.**	Cat	1	**89.**	Ray	1
30.	Solar eclipse	1	**60.**	Superhero	1			

As seen in Table 1, the teacher candidates came up with 89 valid metaphors about COVID-19. These metaphors are listed in the table according to their frequency values. The metaphors that the teacher candidates frequently used were "reminder (f = 10)", "gossip, (f = 8)", "warder, (f = 7)", "foe, (f = 7)", "ignorant person, (f = 5)", "atom bomb, f = 5", "love, (f = 5)", "cigarette, (f = 5)", "dragon, (f = 4)", and "meteorite / meteor, (f = 4)".

According to the findings regarding the data obtained, the metaphors created by the teacher candidates about the COVID-19 pandemic were grouped under seven conceptual categories. These were "items/objects, natural events, animals/plants, actions/behaviors, abstract concepts, people, and professions". The distribution of the valid metaphors created by the candidate teachers by category was as follows: 18 in items/objects conceptual category (f=42), 16 in natural events (f=25), 14 in animals/plants (f=18), 13 in actions/behaviors (f=26), 11 in abstract concepts (f=20), 10 in people (f=24), and 7 in professions (f=13). The metaphor counts of these categories, the frequency values, and the sample description expressions given by the teacher candidates are presented in tables below. The categories are presented in the descending order by the code count.

Table 2. Metaphors for *items/objects* category

Categories	**Codes**	**Teacher candidates**	
		f	%
Items/objects	Reminder	10	6
	Cigarette	5	3
	Atom bomb	5	3
	Chemical cleaning material	3	1.7
	Chewing gum	3	1.7
	Dominoes	3	1.7
	Glass	2	1.2
	User manual	1	0.6
	Bag	1	0.6
	Truck with a brake failure	1	0.6
	Safety belt	1	0.6
	Map	1	0.6
	Cage	1	0.6
	Ink	1	0.6
	Balloon	1	0.6
	Mirror	1	0.6
	Snowball	1	0.6
	Alarm clock	1	0.6
	Total	42	25

As seen in Table 2, the majority of the metaphors were in the *items/objects* category (f = 42). The teacher candidates created 18 valid metaphors in this category. Some examples of the teacher candidates' descriptive statements about these metaphors are as follows:

> *"COVID-19 is similar to chemical cleaning material because it has made some cleaning all around the world. We polluted the world a lot; now it needs cleaning. COVID-19 has killed too many people, but it has also done some cleaning around the world". (F, 14)*

> *"COVID-19 is similar to a reminder because it has reminded us of the importance of life, our priorities, everything we have ignored or postponed, things we have put aside, books we have delayed reading, or everything we have suspended to take care of later". (M, 12)*

> *"COVID-19 is similar to dominoes because it kills everyone whom it touches". (F, 47)*

"COVID-19 is similar to dominoes because even one touch will lead to hundreds of deaths". (F, 49)

"COVID-19 is similar to ink because it disperses and destroys everything in an instant". (F, 57)

"COVID-19 is similar to a mirror because it has enabled people to confront themselves, their mistakes, faults, and shortcomings". (F, 147)

"COVID-19 is similar to cigarettes because they both cause you to have difficulty in breathing". (M, 168)

Table 3. Metaphors for *natural events* category

Categories	Codes	Teacher candidates	
		f	%
Natural events	Meteorite/meteor	4	2.3
	Earthquake	3	1.7
	Swamp	3	1.7
	Natural disasters	2	1.2
	Treeless world	2	1.2
	Rain	1	0.6
	Acid rain	1	0.6
	Fire	1	0.6
	Hurricane	1	0.6
	Darkness	1	0.6
	Solar eclipse	1	0.6
	Food chain	1	0.6
	Hot weather of Urfa city	1	0.6
	Ray	1	0.6
	Mud	1	0.6
	Pollen	1	0.6
	Total	25	15

As seen in Table 3, the teacher candidates created 16 metaphors in the natural events category (f = 25). Some examples of the teacher candidates' descriptive statements about these metaphors are as follows:

"COVID-19 is similar to an earthquake because it also destroys everything and only lucky people can survive, just like the coronavirus patients". (F, 158)

"COVID-19 is similar to an earthquake because coronavirus has completely ruined our lives similar to an earthquake destroying people". (F, 103)

"COVID-19 is similar to a meteor because it has brought humanity to the brink of extinction, just like meteors bringing the end of dinosaurs". (F, 160)

"COVID-19 is similar to acid rains because it has a dissolving, sickening, and lethal effect where it flows. At the same time, its effect spreads over the region where it shows up". (M, 133)

"COVID-19 is similar to the hot weather of Urfa city because no matter how strong and vigorous you are, it will melt and almost kill you". (M, 156)

"COVID-19 is similar to a swamp because no country that it swallows can easily get rid of it, the more you struggle, the deeper you sink, it ruins the economies of countries, ruins health systems, and ruins the psychology of people." (F, 28)

Table 4. Metaphors for *animals/plants* category

Category	Codes	Teacher candidates	
		f	%
Animals/plants	Dragon	4	2.3
	Dinosaur	2	1.2
	Black swan	1	0.6
	Ant	1	0.6
	Vulture	1	0.6
	African fly	1	0.6
	Anopheles	1	0.6
	Scorpion	1	0.6
	Wolf	1	0.6
	Virus	1	0.6
	Ivy	1	0.6
	Corn	1	0.6
	Pomegranate	1	0.6
	Cat	1	0.6
	Total	18	11

As seen in Table 4, the teacher candidates created 14 metaphors in the *animals/plants* category (f = 18). Some examples of the teacher candidates' descriptive statements about these metaphors are as follows:

> *"COVID-19 is similar to ivy because they both spread disproportionately in environments where they find the opportunity". (F, 70)*

> *"COVID-19 is similar to anopheles because they both have changed the course of history". (F, 56)*

> *"COVID-19 is similar to a dragon because the weapon of both is fire. Both of them burn their opponents with this weapon". (F, 48)*

> *"COVID-19 is similar to a scorpion because you need to escape and to get rid of it. If we do not take our measures, it can kill anyone when it bites". (M, 7)*

Table 5. Metaphors for *actions/behaviors* category

Category	Codes	Teacher candidates	
		f	%
Actions/behaviors	Gossip	8	4.7
	War	3	1.7
	Taking the KPSS test	3	1.7
	Torturing	2	1.2
	Living	2	1.2
	Searching water in the desert	1	0.6
	Separation	1	0.6
	Hooliganism	1	0.6
	Impact	1	0.6
	Consumer	1	0.6
	Gambling	1	0.6
	Evil	1	0.6
	Imperialism	1	0.6
	Total	26	15

As seen in Table 5, the teacher candidates created 13 metaphors in the *actions/behaviors* category (f = 26). Some examples of the teacher candidates' descriptive statements about these metaphors are as follows:

"COVID-19 is similar to a gossip because it spreads very quickly; it multiplies as it spreads and poisons everything which it reaches". (M, 138)

"COVID-19 is similar to a war because you must fight and take precautions to survive". (M, 142)

"COVID-19 is similar to a war because we need to fight and to take measures to survive". (F, 149)

"COVID-19 is similar to imperialism because coronavirus is also invasive, colonial, and deadly". (M, 55)

"COVID-19 is similar to searching water in the desert because finding a vaccine is like a mirage for now". (F, 24)

"COVID-19 is similar to gambling because whether you win or lose depends on your next move". (M, 134)

"COVID-19 is similar to taking the KPSS test *because they both ruin my best years". (F, 40).*

Table 6. Metaphors for *abstract concepts* category

Category	**Codes**	**Teacher candidates** f	%
Abstract concepts	Love	5	3
	Affection	3	1.7
	Regret	3	1.7
	Time	2	1.2
	Chance	1	0.6
	Knowledge	1	0.6
	Happiness	1	0.6
	Homesickness	1	0.6
	Equality	1	0.6
	Hatred	1	0.6
	Painful events	1	0.6
	Total	20	12

As seen in Table 6, the teacher candidates created 11 metaphors in the *abstract concepts* category (f = 20). Some examples of the teacher candidates' descriptive statements about these metaphors are as follows:

"COVID-19 is similar to love because they both kill you or make you miserable". (M, 3)

"COVID-19 is similar to love it does not leave the body it enters before the body collapses". (M, 4)

, "COVID-19 is similar to affection because both proliferate as they are shared". (F, 59)

"COVID-19 is like hatred; you can't see it but you feel it all over your body". (F, 11)

"COVID-19 is similar to regret because it makes you realize things you have not been able to appreciate". (F, 121)

"COVID-19 is similar to time because it shows us whoever laughs last laughs best." (M, 143)

"COVID-19 is similar to equality because it kills both rich and poor people." (F, 21)

Table 7. Metaphors for *people* category

Category	Codes	Teacher candidates	
		f	%
People	Foe	7	4.2
	Ignorant person	5	3
	Cruel person	3	1.7
	Insidious person	2	1.2
	Unfriendly ruler	2	1.2
	Chinese	1	0.6
	Serial killer	1	0.6
	Terrorist	1	0.6
	Bad friend	1	0.6
	Seeker in the hide-and-seek game	1	0.6
	Total	24	14

As seen in Table 7, the teacher candidates created 10 metaphors in the *people* category (f = 24). Some examples of the teacher candidates' descriptive statements about these metaphors are as follows:

"COVID-19 is similar to a foe because it aims to kill us". (F, 16)

" COVID-19 is similar to a foe because it disturbs our peace". (M, 167)

"COVID-19 is similar to a terrorist because it can separate us from our loved ones by attempting to kill us in an unexpected moment". (F, 85)

"COVID-19 is similar to a terrorist because it attacks the elderly, children, everyone mercilessly". (M, 92)

"COVID-19 is similar to an unfriendly ruler because such a ruler wants to take over the world without recognizing any boundaries and having mercy". (M, 163)

Table 8. Metaphors for *professions* category

Category	Codes	Teacher candidates	
		f	%
Professions	Warder	7	4.2
	Teacher	1	0.6
	Judge	1	0.6
	Superhero	1	0.6
	Hunter	1	0.6
	Thief	1	0.6
	Life coach	1	0.6
	Total	13	8

As seen in Table 8, the teacher candidates created 7 metaphors in the *professions* category (f = 13). Some examples of the teacher candidates' descriptive statements about these metaphors are as follows:

"COVID-19 is similar to a judge because the judge puts criminals in jail. It has locked people who harm nature and living things home". (F, 64)

"COVID-19 is similar to a hunter because neither of them lets go of what/whom they catch." (F, 136)

"COVID-19 is similar to a superhero because air pollution in the world has decreased to almost zero thanks to him. Many people are more attentive to hygiene now than ever." (E, 6)

"COVID-19 is like a thief because it is stealing people's future, dreams and hopes". (F, 66)

"COVID-19 is similar to a warder because it has locked us up home." (F, 16)

"COVID-19 is similar to a warder because both of them threaten people to stay where they are. One of them threatens with a truncheon and the other with respiratory illnesses". (M, 91)

"COVID-19 is similar to a teacher because it, like a teacher, has taken on a kind of instructional role. It has taught people how to live in the world." (F, 94)

Conclusion, Discussion and Suggestions

This study aimed to determine the metaphoric perceptions of the teacher candidates about COVID-19. To achieve this goal, 168 volunteer teacher candidates who were attending five different departments were identified as the study group. According to the findings obtained, it was found that the teacher candidates had put forward 89 valid metaphors about COVID-19. The metaphors created by the teacher candidates about COVID-19 were grouped under 7 categories, namely, "*items/objects, natural events, animals/plants, actions/behaviors, people, abstract concepts, and professions.*"

Many studies have investigated the teacher candidates' metaphoric perceptions. These studies have tried to determine their thoughts about various topics through metaphors. Some of these topics, for example, include digital literacy in Dedebali (2020), being good citizens in Dere (2019), biology lesson in Durdukoca and Önel (2020), the concept of curriculum in Gültekin (2013), the concepts of teacher and teaching profession in Koç (2014), and physical education lesson and physical education teachers in Yüksel, Sütçü, and Özdemir (2019).

Similar studies on metaphoric perceptions about COVID-19 have been found in the literature. In their study conducted to examine university students' perceptions about COVID-19 through metaphors, Özmercan-Eminoğlu, Küçüktepe-Eminoğlu and Küçüktepe (2020) found that the majority of the metaphors were in the "*freedom restriction*" category. This result is similar to the "*warder*" metaphor created by the teacher candidates in the present study. The warder metaphor can also be associated with freedom. In this sense, it can be concluded that COVID-19 evokes similar feelings in the students who attend different universities. Dönmez and Gürbüz (2020) studied the cognitive structures of university students about COVID-19 and found the metaphors, such as "*health", "living space",* and *"nature*", as the most frequently used ones. Although there are similar metaphors (*natural events category*) in the present study, there are no exactly matching metaphors. Arı and Arslan (2020) studied the metaphoric perceptions of 6th-grade students about COVID-19. The results which they obtained were similar to some of the results of the current study. The teacher candidates in this study used the same metaphors of "*earthquake, gossip, gun, and cigarette*" as 6thgrade students did. Also, the metaphors created in both studies were almost entirely negative. This may lead to the conclusion that COVID-19 has devastating effects on individuals regardless of age and education level. Aykutalp and Karakurt (2020) emphasized the stigmatizing power of the metaphors derived from COVID-19. In the study, COVID-19 was described with a series of metaphors, such as "*mysterious, evil, invisible enemy, insidious danger, a democratic virus*". Besides, the study highlighted that the metaphors created about the disease caused the struggle against the disease itself to be described with various metaphors. For example, they reported that metaphors, such as "*invisible enemy", "biological war",* created about COVID-19 caused the description of the struggle against the disease to involve words of military terminology and that the metaphor of "*a Chinese virus*" directly led to a racist approach to the virus and turned it into a means of social marginalization. Craig (2020) stressed that COVID-19 was described with various metaphors instead of the word

“*disease*” in different areas. He added that especially political leaders defined the fight against this pandemic as a war and that people working in the health and food and beverage sectors were described as people serving in the front line. Similar metaphoric approaches were also encountered in the present study. The metaphors created by the teacher candidates, such as "*enemy, unfriendly ruler, weapon, atom bomb,* or *terrorist*", showed that the virus was approached politically and militarily and that the use of the "*Chinese*" metaphor was a form of marginalization. The teacher candidates resembled the quarantine processes to a prison with the “*warder*” metaphor they created. Also, although the metaphors of *"love* and *affection*" created by the teacher candidates seemed to be positive at first, they used them to emphasize the infectious, destructive, and deadly effect of COVID-19. In the present study, the participants also used positive metaphors, such as “*teacher, life coach,* and *reminder*”, which meant that COVID-19 was something to remind people of important things in life. With metaphors, such as "*chemical cleaning material, superhero*", which the candidate teachers attributed a positive meaning, they expressed the increase in the importance given to hygiene and the purification of the world due to having to stay at home. The views of the teacher candidates were further supported by Bourzac (2020), who emphasized that quarantine process and the decrease in traffic significantly reduced air pollution, and Berman and Ebisu (2020), who studied the relationship between the reduction of harmful gases in the air and the COVID-19 pandemic.

In this study, the majority of the metaphors created by the teacher candidates were negative metaphors. The teacher candidates may have felt negative emotions and thoughts because they had to suddenly leave schools, stay home, and continue distance education with the outbreak of the virus. However, it can be said that this process has also provided the teacher candidates with a good opportunity for personal development although it is a difficult and troublesome process. In addition to many challenges, the epidemic has led to some positive changes in habits and mentalities, such as paying attention to personal hygiene, self-care, health of relatives particularly those at risk for diseases (quitting smoking, eating organic food), and spending more time exercising (Aristovnik, Keržič, Ravšelj, Tomaževič, and Umek, 2020). Toquero (2020) expressed that higher education institutions faced challenges in planning, implementation, and evaluation systems during the pandemic process, but this also created opportunities to focus attention on new technologies. Moreover, this process has shown that distance education will be permanent all over the world and will be integrated into education even more. Therefore, strategies on distance education, pandemics, and the ways of coping with such situations can be formulated by policymakers and higher education institutions. This study concentrates on only one higher education institution. Metaphoric perceptions of the teacher candidates' about COVID-19 can be studied across Turkey.

References

Adıyaman, Z., & MEB Eğitim Teknolojileri Genel Müdürlüğü. (2001). Uzaktan eğitim yoluyla yabancı dil öğretimi. *The Turkish Online Journal of Educational Technology TOJET,* 1(11), 92-97.

Adnan, M., & Anwar, K. (2020). Online learning amid the COVID-19 pandemic: Students' perspectives. *Online Submission*, 2(1), 45-51.

Alhumaid, K., Ali, S., Waheed, A., Zahid, E., & Habes, M. (2020). COVID-19 & e-learning: perceptions & attitudes of teachers towards e-learning acceptance in the developing countries. *Multicultural Education*, 6 (2).

Arı, A.G. & Arslan, K. (2020). Ortaokul öğrencilerinin Covid-19'a yönelik metaforik algıları, *Turkish Studies*, 15(6), 503-524.

Aristovnik, A., Keržič, D., Ravšelj, D., Tomaževič, N., & Umek, L. (2020). Impacts of the COVID-19 pandemic on life of higher education students: A global perspective. *Sustainability*, 12(20), 8438. https://doi.org/10.3390/su12208438

Aydoğdu, E. (2008). *İlköğretim okullarındaki öğrenci ve öğretmenlerin sahip oldukları okul algıları ile ideal okul algılarının metaforlar yardımıyla analizi* (yüksek lisans tezi). YÖK tez merkezinden edinilmiştir (177265).

Aykutalp, A. & Karakurt, M. (2020, November). *Illness as a metaphor: An evaluation on Covid-19.* Paper presented at the 3rd International Congress of Human Studies, Ankara.

Berman, J. D., & Ebisu, K. (2020). Changes in US air pollution during the COVID-19 pandemic. *Science of the Total Environment*, 739, 139864.

Bezuidenhout, A. (2001). Metaphor and what is said: A defense of a direct expression view of metaphor. *Midwest studies in philosophy*, 25, 156-186.

Bourzac, K. (2020). COVID-19 lockdowns had strange effects on air pollution across the globe. *Chemical and engineering news.* 98 (37). https://cen.acs.org/environment/atmospheric-chemistry/COVID-19-lockdowns-had-strange-effects-on-air-pollution-across-the-globe/98/i37. Retrieved from internet on 22.12.2020.

Bozkurt, A. (2020). Koronavirüs (Covid-19) pandemisi sırasında ilköğretim öğrencilerinin uzaktan eğitime yönelik imge ve algıları: Bir metafor analizi. *Uşak Üniversitesi Eğitim Araştırmaları Dergisi*, 6 (2), 1-23

Craig, D. (2020). Pandemic and its metaphors: Sontag revisited in the COVID-19 era. *European Journal of Cultural Studies*, 23(6), 1025-1032.

Dedebali, N. C. (2020). Analysis of digital literacy and metaphoric perceptions of teacher candidate. *International Journal of Educational Methodology*, *6*(1), 135-145. https://doi.org/10.12973/ijem.6.1.135

Dere, İ. (2019) Metaphoric perceptions of prospective social studies teachers towards the concept of 'good citizen', *Journal of Kırşehir Education Faculty*, 20(1), 457-480.

Dönmez, İ., & Gürbüz, S. (2020). Üniversite öğrencilerinin Covid-19 virüsü hakkında bilişsel yapılarının belirlenmesi. *Manas Sosyal Araştırmalar Dergisi*, 9(4), 2159-2172.

Durdukoca, S. F., & Önel, A. (2020). Determining the attitudes and metaphoric perception of prospective science teachers toward biology courses. *Asian Journal of Education and Training*, 6(2), 136-143.

Ekici, G. (2003). Uzaktan eğitim ortamlarının seçiminde öğrencilerin öğrenme stillerinin önemi. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, 24(24).

Gültekin, M. (2013). İlköğretim öğretmen adaylarının eğitim programı kavramına yükledikleri metaforlar. *Eğitim ve Bilim*, 38 (169).

Keser, H. (2005). *İnsan bilgisayar etkileşimi ve sağlığa etkisi*. Ankara: Nobel Yayın Dağıtım.

Koçer, E. (2001). *Web tabanlı uzaktan eğitim* (yüksek lisans tezi). YÖK tez merkezinden edinilmiştir (106167).

Koç, E. S. (2014). Sınıf öğretmeni adaylarının öğretmen ve öğretmenlik mesleği kavramlarına ilişkin metaforik algıları. *İnönü Üniversitesi Eğitim Fakültesi Dergisi*, 15(1).

Li, C & Lalani, F. (2020). The COVID-19 pandemic has changed education forever. This is how, *World Economic Forum*, https://www.weforum.org/agenda/2020/04/coronavirus-education-global-covid19-online-digital-learning/. Retrieved from internet on 01.07.2020.

MEB, (2020), *Bakan Selçuk, Koronavirüs'e karşı eğitim alanında alınan tedbirleri açıkladı*. https://mevzuat.meb.gov.tr/bakan-selcuk-koronaviruse-karsi-egitim-alaninda-alinan-tedbirleri-acikladi/haber/20497/tr. Retrieved from internet on 30.06.2020.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks, CA: Sage

Özmercan-Eminoğlu, E, Küçüktepe-Eminoğlu, S. & Küçüktepe, C. (2020). University students' perception of COVID-19: A metaphor analysis, *International Journal of Educational Studies and Policy*,1(1), 36-54.

Padilla-Díaz, M. (2015). Phenomenology in educational qualitative research: Philosophy as science or philosophical science. *International Journal of Educational Excellence*, 1(2), 101-110.

Saban, A. (2008), Okula ilişkin metaforlar. *Kuram ve Uygulamada Eğitim Yönetimi*, 55 (55), 459-496. Retrieved from https://dergipark.org.tr/tr/pub/kuey/issue/10342/126702

Surani, D., & Hamidah, H., (2020). Students perceptions in online class learning during the Covid-19 Pandemic. *IJoASER (International Journal on Advanced Science, Education, and Religion)*, 3(3). 83-.95. https://doi.org/10.33648/ijoaser.v3i3.78

Toquero, C. M. (2020). Challenges and opportunities for higher education amid the COVID-19 pandemic: The Philippine context. *Pedagogical Research*, 5(4).

Tok, H., Özgan, H., & Döş, B. (2010). Uzaktan eğitim sınıfında başarının pozitif yordayıcısı olarak biliş ötesi farkındalık stratejisi ve öğrenme stratejilerinin değerlendirilmesi. *Mustafa Kemal Üniversitesi Sosyal Bilimler Enstitüsü Dergisi,* 7(14), 123-134.

UNESCO, (2020a), *Education: from disruption to recovery*. https://en.unesco.org/covid19/educationresponse. Retrieved from internet on 30.06.2020.

UNESCO, (2020b), *Distance learning solutions*. https://en.unesco.org/covid19/educationresponse/solutions. Retrieved from internet on 30.06.2020.

Viner, R. M., Russell, S. J., Croker, H., Packer, J., Ward, J., Stansfield, C., Mytton, O., Bonel, C. & Booy, R. (2020). School closure and management practices during coronavirus outbreaks including COVID-19: a rapid systematic review. *The Lancet Child & Adolescent Health*. 4 (5), 397-404. https://doi.org/10.1016/S2352-4642(20)30095-X

Yıldırım, A. & Şimşek, H. (2018). *Sosyal bilimlerde nitel araştırma yöntemleri.* Ankara: Seçkin Yayıncılık.

YÖK, (2020a), *Basın ve halkla ilişkiler müşavirliği, basın açıklaması* https://covid19.yok.gov.tr/Documents/alinan-kararlar/03-uzaktan-egitime-iliskin-alinan-karar.pdf. Retrieved from internet on 28.06.2020.

YÖK, (2020b), *Basın ve halkla ilişkiler müşavirliği, koranavirüs (Covid-19) bilgilendirme notu: 1,* https://covid19.yok.gov.tr/Documents/alinan-kararlar/02-coronavirus-bilgilendirme-notu-1.pdf. Retrieved from internet on 28.06.2020.

YÖK, (2020c), *Basın ve halkla ilişkiler müşavirliği, YÖK'ten küresel salgın ile mücadele sürecinde yeni düzenlemeler-II,* https://covid19.yok.gov.tr/Documents/alinan-kararlar/23-kuresel-salgin-ile-mucadele-gerceklesen-yapisal-duzenlemeler-2.pdf. Retrieved from internet on 28.06.2020.

Yüksel, H. S., Sütcü, O., & Özdemir, B. (2019). Exploring of prospective teachers' metaphoric perceptions about the concepts of "physical education course" and" physical education teacher". *Journal of education and learning*, 8(2), 58-68.

WHO, (2020a), *Q&AS on COVID-19 and related health topics,* https://www.who.int/emergencies/diseases/novel-coronavirus-2019/question-and-answers-hub/q-a-detail/q-a-coronaviruses. Retrieved from internet on 28.06.2020.

WHO, (2020b), *Director-general's opening remarks at the mission briefing on COVID-19*. https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-missionbriefing- on-covid-19. Retrieved from internet on 28.06.2020.

International Journal of Educational Studies and Policy (IJESP)

Volume: 2, Issue: 1, May 2021

Teacher Views on Blended Learning

Mehmet Başaran[1] Ömer Faruk Vural[2] Cansu Öztaş[3]

ABSTRACT

This study aims to contribute to the knowledge available in the literature through revealing teachers' views on blended learning. Considering that blended learning aims to integrate the positive aspects of different learning environments, it is important to determine the positive and negative situations in learning environments. In line with the purpose of the study, 20 teachers from different branches working in public schools were interviewed in the 2020-2021 academic year. Semi-structured interview questions were asked to the teachers. This research is a case study and it is in qualitative research design. Descriptive analysis approach was used to analyze the data obtained from the research. Teachers' views about blended learning were analyzed in terms of the definition of blended learning, blended learning applications, positive and negative aspects of online and classroom applications for teachers, positive and negative aspects of online and classroom applications for students, changes of blended learning environments on the teacher's role. It was concluded that online applications address more than one sense organ and develop the ability to use technology. They also provide effective communication atmosphere which positively affect both teachers and students in-classroom practices. Insufficiency in technical infrastructure draw attention as common negativity for both teachers and students in online applications. Also, it was determined that the teachers do not have enough knowledge about blended learning. Teachers should be guided about this issue with in-service training.

Keywords: Blended learning, teacher views, learning environments

Article History: Received 10.02.2021 **Accepted 23.04.2021**

Cite as: Basaran, M., Vural, Ö. F., & Öztaş, C. (2021). Teacher views on blended learning. *International Journal of Educational Studies and Policy, 2*(1), 40-59.

.

[1]Corresponding Author: Assist. Prof. Mehmet Başaran, Gaziantep University, mehmetbasaran@outlook.com, ORCID: 0000-0003-1871-520X

[2]Assoc. Prof. Ömer Faruk Vural, Sakarya University, omervural@sakarya.edu.tr, ORCID: 0000-0002-1520-3762

[3] Cansu Öztaş, Ministry of National Education, oztas.cansu.4@gmail.com, ORCID: 0000-0003-2248-5355

Introduction

In recent years, civilization has been rapidly evolving and growing at an unprecedented rate. The final point of this transition and growth is that every area of life is penetrated by technology. This condition helps us to do many things, from our easiest activities in our everyday lives to the most difficult Internet and IT transactions. In addition, the most important point that separates the modern education system from conventional education systems is the fact that this model provides the opportunity to learn anytime, anywhere. Reaching information becomes easier as the use of technology in education increase. In addition to the diversification of educational tools and applications, solutions to existing problems in the education system can be found in this way (Yılmaz, 2018). The increasing use of the internet is the fastest progressing aspect of this new education system (Singh and Reed, 2001). The fact that shared education can be received even if the same place is not shared, that more people can be reached, different learning speeds can be addressed, and this also significantly reduces training costs are some of the positive reflections on education (Aksoğan, 2011).

According to Arkorful and Abaidoo (2015), the benefits of using digital resources in education are as follows: It provides learning without depending on time and place, offers the shortest way to reach information, increases motivation for communication and exchange of ideas, cares about individual differences, helps each learner learn at their own pace. However, taking advantage of completely online systems will deprive the learner of the communication provided by face-to-face training. At this point, blended education comes to the fore.

Blended (mixed) education is the combination of traditional face-to-face education and online technologies (Graham, 2006). Traditional education and web-based learning suitable for today's world are offered together (Garrison and Vaughan, 2008). It is defined as an educational approach that offers effective learning experiences by bringing together the most beneficial aspects of face-to-face and online learning environments, which are also expressed as "hybrid learning" or "blended learning" in the literature (Hebebci and Usta, 2015). Considering that different learning environments have different advantages; it is reasonable that presenting these environments altogether will provide more effective and efficient teaching. However, it is not possible to limit blended learning with such a simple definition. Blended learning provides the learning environment and offers the learner the chance to choose information, repeat it when needed, and to progress at the learner's own pace. In addition to providing flexible communication between teachers and students, it also has a significant difference in terms of academic success. Despite the high number of activities implemented, its low cost is another advantage. The warm educational environment provided by face-to-face communication also exists (Ünsal, 2007). It eliminates the negative atmosphere that the disadvantage of communication in distance education creates on students (Yolcu, 2015). Blended learning can also combine traditional education with network technologies by minimizing the interaction problem of network-based learning (Mahiroğlu and Usta, 2008). Blended learning approach enables course content to be presented both face-to-face and online, so teachers and students communicate both face-to-face and online, and real and virtual environments are used together (Gülbahar, 2017). Blended education offers a more effective education environment by giving place to learner-centered education and through the convenience of online education as well as the communication advantage provided by face-to-face education (Draffan and Rainger, 2006). Blended education is a system with its unique components in addition to traditional education, distance education, and online education (Oh, 2006). The online training rate in blended education is between 30% and 79%. This ratio should

be determined by considering factors such as the needs of the learner, technological possibilities, materials, and the format of the course (Allen and Seaman, 2014).

Studies conducted to evaluate blended learning revealed that students enjoy learning in a blended learning environment. With this situation, it was concluded that student participation and success would be positively affected (Akkoyunlu and Soylu, 2006). Based on the data obtained because of the study on blended education, Batdı (2014) concluded that blended education increases academic achievement more than face-to-face education. Sarıtepeci and Yıldız (2014) concluded that blended learning positively affects participation in the course. According to Aksoğan (2011), blended learning provides more permanence to students than face-to-face learning. In a study conducted by Ceylan (2015) about students' opinions, it was stated that blended learning contributes to students' self-discipline in terms of the time they spend in the internet environment. In another study conducted by Çardak (2012), it was concluded that blended learning had positive results on student interaction and learning levels. Karaotcu and Baran (2019) stated that most of the studies conducted about blended learning in Turkey emphasized academic success but that the teacher took a great responsibility at this point by emphasizing the configuration and preparation of the environment. In the same study, they also stated that the most examined area was computer and teaching technologies, the undergraduate level ranks first in the sample of the studies, and quantitative data analysis is mostly used as a data analysis method, and the studies for the teacher should be increased in the subject of examining the different dimensions of the research in qualitative ways and planning blended learning. The result of literature review study of Hebebci and Usta (2015) supports these data. It was stated that more than half of the studies conducted were for undergraduate students, and the dimensions which were obtained with qualitative data were quite limited compared to quantitative data. According to Gates (1999) and Drucker (1996), the teacher is an indispensable element of the learning-teaching process. It is the one that will manage information technologies for the age we are in. It is also the teacher who develops and supervises the strengths and abilities of the learner. It should not be forgotten that the design principles should be followed, and the process should be carried out successfully. Otherwise, unwanted negative results may occur (Aksoğan, 2011). It is also the teacher who will protect the process from these negative effects. When the physical form of the elements that make up the blended learning is examined, the first place is the teacher-led classroom and teacher. It is emphasized that the student cannot learn only through technology and that learning can be achieved with the methods that the teacher integrates with technology (Singh and Reed, 2001). Success in blended learning can be achieved by combining the positive aspects of online and face-to-face learning. So, an education that lacks neither teachers nor technology is unconceivable (Ünsal, 2010).

Considering the findings obtained in the literature, it is seen that the opinions of the teachers who manage the learning process about blended learning are not given extensively. However, feedback from teachers is needed to overcome the deficiencies of the existing system. In learning processes where blended learning is used, it is seen that what is expected from the teacher is a positive attitude towards the student, attracting attention, being a guide, providing motivation, planning, and managing classroom (Çırak, 2017). This situation proves how important the role of the teacher is. However, Tosun and Özaydınlı (2020) stated in their research that teachers do not have enough information about blended learning. While some of the teachers included in the study did not attend any seminars for blended learning, those were teachers who did not found the seminars sufficient. Most teachers could not define blended learning. Some of them made the definition based on their estimates. The same study divided the teachers' opinions about blended

learning into two categories: positive and negative, and the number of negative opinions is higher than the positive ones. The positive aspects for the teacher are that their contribution to teaching skills, less workload, more examples and contents, and decrease in costs; they stated the positive aspects as investigative and independent learning for students, providing them with convenience in terms of time and information, ensuring permanent learning, and revealing creativity. The common denominators of the negative opinions expressed were the inappropriateness of the current conditions, infrastructure problems, problems in internet access, lack of technological equipment, practice problems in crowded classrooms, and lack of training of teachers. A similar study was carried out by Kırmızı and Yapıcı (2019) and revealed that most of the teachers showed a positive attitude despite the problems experienced in hardware and software. Teachers stated the reduction in the workload as a positive development and it contributed to the feedback and evaluation. Other positive aspects include increasing motivation, keeping the lesson away from boredom, and finding more repetition and practice opportunities for the student. According to the data of Bodur (2019), online applications of blended learning support and complement in-class applications. The insufficiency of questions asked by students is the weakness of online applications. According to Balcı (2017), teachers will be pleased to carry out the learning-teaching process with blended learning. Following online instructions are easier than doing face-to-face training for students. Although the teachers show a positive attitude regarding the benefits it will provide, they stated that there would be various problems in terms of implementation. Also, they expressed that the variety of online applications will cause each teacher to perceive blended learning differently.

Teachers' in-service training for blended learning and their close relation to computer technologies and their understanding of its increasing importance day by day will also affect this situation. The fact that blended learning combines the traditional and modern understanding of education under a single approach emphasizes the importance of examining it in all aspects as well as the limitations of existing studies. Studies that generally address the undergraduate level and focus on online applications reveal the importance of the research. This study aims to obtain data that will broaden the limited knowledge in the literature and help to ensure the most effective application of blended learning with the opinions of teachers who are blended learning practitioners. Besides, it is thought that the teachers' opinions about the different application environments of blended learning will shed light on the further studies to improve the positive situations and eliminate the negative situations. The question "What are the teachers' views on blended learning?" reveals the problem of the research. Following the main purpose of the research, answers to the following questions will be sought:

1. What are the teachers' opinions on the definition of blended learning?
2. What are the teachers' opinions about blended learning?
3. What are the teachers' opinions about the positive aspects of blended learning online for the teacher?
4. What are the teachers' opinions about the positive aspects of blended learning in-class applications for the teacher?
5. What are the teachers' opinions about the negative aspects of blended learning online for the teacher?
6. What are the teachers' opinions about the negative aspects of blended learning in-class applications for the teacher?

7. What are the teachers' opinions about the positive aspects of online applications of blended learning for students?

8. What are the teachers' opinions about the positive aspects of blended learning in-class applications for students?

Method

Research Pattern

The qualitative research approach was used to obtain the answers to the questions for blended learning. Qualitative analysis refers to a holistic methodology in which qualitative methods of data collection are used to analyze the subject or incidents under examination in their natural setting (Yıldırım and Şimşek, 2018). In qualitative research, the researcher talks to people about their experiences and perceptions. A researcher can formally conduct a personal or group interview. Detailed field notes are collected through observation, interviews, and document reviews. Raw data obtained from these notes with the content analysis notable theme, category, and narrative description readable separated and illustrative examples of situations become be inhibitory. Qualitative data captures and conveys a person's world experiences in one's own words (Patton, 2018).

This research is a case study, and it is in qualitative research design. The most distinctive feature of the case study is the in-depth investigation of one or more cases. The factors related to the situation investigated (environment, individuals, events, processes, etc.) are investigated within the framework of a holistic approach and focus on how they affect the relevant situation (Yıldırım and Şimşek, 2018). The situation examined within the scope of this research is the opinions of teachers on blended learning.

Participants

The research was conducted with 20 teachers from different branches who work in public schools in the 2020-2021 academic year. The purpose sampling method, one of the non-probabilistic sampling methods, was used to determine the sample (Gürbüz and Şahin, 2014). Purpose sampling, according to Patton (1987) allows for an in-depth investigation of situations thought to contain rich information (Yıldırım and Şimşek, 2018).

The purpose sampling method was preferred since it was necessary to benefit from the teachers who had taught using the blended learning approach to obtain the most efficient results in determining the teachers' views on blended learning. Participating teachers were coded as T1, T2, T3… T 20. The demographic characteristics of the participants are presented below.

50 percent of the teachers participating in the study were primary teachers, 10 percent were Turkish teachers, five percent were history teachers, five percent were preschool teachers, five percent were English teachers, five percent were guidance and psychological counseling, five percent were music, five percent were mathematics and five percent were science teachers. 55 percent of the teachers who participated in the study had five years and less service time, 15 percent had 6-10 years of service, and 30 percent had 21 years and more. 95 percent of the teachers participated in the study work in the city center and 5 percent in the village. None of the teachers participating in the study have attended in-service training or courses for blended learning.

Validity and Reliability of the Study

The validity is that the data collection tool that will provide similar results on similar groups can fully reveal the reality (Maxwell, 1992). According to Kirk and Miller (1986), validity means that the researcher observes the phenomenon which he/she investigates as it is and as objectively as possible.

On the other hand, reliability is the acquisition of information obtained from research with different researchers (Marvasti, 2004). The studies carried out to ensure validity and reliability in this study are mentioned below.

Opinions of an academician who specializes in qualitative research and conducts studies in the field of instruction and curriculum were received to prepare and develop the interview form to be used in the study. The same academician confirmed that the interview form represents the subject to be investigated. The research was conducted by obtaining detailed feedback on each section. Approval was obtained from the teachers who participated in the study.

While determining the study group of the study, the purposeful sampling method was considered to ensure the best representation of the universe. The interviews were carried out at times appropriate for participating teachers, and the factors that could affect the research results were prevented. Interviews' voices were recorded to prevent data loss during the interview. Voices were recorded after the approval of all participants.

The data obtained because the interviews were coded by the researcher, the similarities, differences, and consistency between the codes were considered. To prevent research data become complicated, data not related to research questions were removed. In the stage of sharing the findings, the actual statements of the teachers interviewed were directly included. In the research, sample selection was made to increase external usability. In addition, to ensure reliability, the data was encoded by two different researchers and field experts and calculated using Miles and Huberman (1994) 's "Reliability = (Consensus) / (Consensus + Difference of Opinion) * 100" formula for consensus or identification of differences. As a result of the calculation, coding compatibility between researcher and expert was 0.88.

Data Collection Tool

A semi-structured interview form was used as a data collection tool in the study. In this approach, it is essential to provide the depth of knowledge by asking the participant questions previously prepared by the researcher. Preparing the questions in advance facilitates the arrangement and analysis of the answers (Yıldırım and Şimşek, 2018).

The interview form was prepared by examining national and international literature for blended learning. Care was taken to ensure that the questions that make up the interview form could be answered concerning experiences, not general and abstract expressions. Also, by making a variety of question types, open-ended questions were included in which researchers could present their opinions and experiences in detail, with closed-ended answers such as their education status, service time, location of the school where they worked, and their in-service training for blended learning. The interview form was designed to include six questions in the first section containing personal information and 12 open-ended questions in the second section, which would enable to reach data about teachers' opinions on blended learning. If the questions were not understood by the participating teachers, alternative questions were also prepared to be used to reach the required data.

In order not to hinder the natural flow of the interview, the questions were changed from time to time. If the answer to one question includes the answers to other questions, the question is not repeated. Encouraging feedback was given to receive in-depth information, but during this time, guidance was avoided. If the interviewed teacher drifted away from the subject or went into unnecessary details during the interview, his attention was redirected to the subject of the interview. The interviews were originally conducted in Turkish.

Data Analysis

A descriptive analysis approach was used to analyze the data obtained from the research. According to this approach, the data are summarized in line with the predetermined themes. The opinions of the interviewed participants are given by direct quotation. The aim is to present the findings to the reader by organizing and interpreting them (Yıldırım and Şimşek, 2018)

In the first stage, to do the content analysis, the voice recordings obtained from the interviews were listened to and converted into a written text by giving codes to each teacher (such as T1, T2, T3). The obtained data were examined by the researcher and divided into meaningful codes. Besides, an academic expert in the field of research subject and qualitative research was asked to conduct an expert review.

Findings

The themes and codes created from the findings obtained from the answers given by the teachers in the interview form are included in this section. The interviews were originally conducted in Turkish, then all codes and themes were created as Turkish and translated in English.

The findings of the teachers' answers to the question "What is blended learning?" are presented in Table 1.

Table 1. Theme 1: Teachers' definitions of blended learning

Codes	Frequency-Teacher Code	Quotation
No idea	(10) T2, 3, 6, 7, 8 , 9 , 11 , 12 , 19 , 20	T19 - *"I've heard it before, but I don't know what happened."*
Using different learning approaches together	(5) T1, 4, 5, 14, 17	T5 - *"I guess ... I think that a few learning can be done by using them together."*
Blending distance education and face-to-face training	(1) T15	T15 - *"When I say blended learning, I think it's like presenting different conditions at the same time. It can be like blending distance learning and face-to-face training. But I don't know exactly. "*
Addressing different learning styles	(1) T13	T13 - *"Students can have different learning styles. Some students can learn better this way. I think it appeals to more students."*
Hybrid education	(2) T10, 16	T16 - *"I heard but I have no idea. I've heard of hybrid learning. "*
Blending technology and education	(1) T18	T18 - *"Technology is blended with the training."*

As seen in Table 1, most of the teachers could not express an opinion on the definition of blended learning. It is seen that some of the teachers who stated their opinions made definition key to their estimates. One of the teachers T1 said, *"I am guessing. Mixing using certain learning*

approaches. Taking the good sides without taking away the missing parts." He had guessed. T4 answered the question as *"I made sense of the combination of different learnings, the use of them together"*. The opinion of T10 was *"We heard hybrid education with pandemic with online lessons."* expressed in the form.

The questions asked to teachers were: "Do you teach by using blended learning environments together? If so, what are the applications you do? "The findings obtained from the answers are presented in Table 8. For the question "What is blended learning?", it was reached that some of the teachers did not have information about blended learning, with reference to the findings obtained from the answers given to the question. Brief information was given before the question to avoid data loss, and thus the data in Table 2 was deepened in this way.

Table 2. Theme 2: Applications of teachers performing blended learning

Codes	Frequency-Teacher Code	Quotes
Using online applications for preparation before face-to-face teaching	(1) T14	T14 - *"I throw the subject that I will tell before the lesson to my students. I use it for preparation. I ensure their readiness so that they understand the importance of the issue."*
Using online applications to comprehend course subjects	(18) T1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 20	T15 - *"I cannot do different style activities when the smartboard is not at school.* But in the z*oom application,* I *can screen share and show. I can use different materials on the subject. "*
Using online apps for tutorial repetition or homework after face-to-face training	(9) T3, 4, 6, 7, 8, 10, 11, 14, 19	T11 - *"First, I have to give it face to face, I can explain the subject and get the exercise done… it needs to be reinforced. We get used to the subject and make it practice on it."*

As seen in Table 2, teachers see the online applications of blended learning as supportive of the face-to-face environment rather than being the main element of teaching. T11 stated *"cycle in-house environment I'm going to online new issues, it helps to comprehend."* in the form. T19 said *"I give the subject in face-to-face training and do reinforcement exercises from Eba"* in the expression. The striking point here is that while the asynchronous planning of online applications is made for lesson preparation, repetition, summary, or reinforcement, synchronous lessons are generally used to transfer new information to students.

The findings obtained from teachers' opinions about the positive aspects of online applications of blended learning for teachers are presented in Table 3.

Table 3. Theme 3: Positive aspects of online applications for teachers

Codes	Frequency-Teacher Code	Quotation
Maintain control of learning environments	(2) T13, 16	T16 - *"It is easy to provide discipline. You provide classroom management."*
Reduce the teacher's workload	(5) T2, 8, 11, 13, 16	P 8 - *"Whatever your field is, this is a great comfort. I can use what I'm going to show directly at that moment without having to prepare. "*
Address multiple senses	(7) T2, 5, 8, 11, 12, 13, 15	T 2 - *"Visually rather than words is very important for us … We need to include all of them."*
Eliminate an environmental problem	(7) T3, 6, 7, 10, 15, 19, 20	P 6 - *"I can reach easily because I am in my home environment. If I go to school, there are internet and infrastructure problems. We eliminate the* environmental *problem"*
Time-saving	(5) T2, 10, 14, 15, 20	T14 - *"We save time"*
Helping situations where real materials cannot be used	(2) T2, 17	T 2 - *"If there is a place we cannot show or go to, we can open it immediately and show it."*
Material, content, sample, and application diversity	(6) T1, 2, 14, 15, 18, 19	T18 - *"The classroom is too theoretical... I need to make an application... I have a chance to make the application. "*
Conformity to the present	(2) T4, 11	T4 - *"Today, there are tablets, games, we need to see that they all exist in education. We shouldn't be behind the times. For example, we cannot just get up and use an overhead projector in the classroom as it used to be. Now we have to use the things brought by the age."*
Personal and professional development	(2) T3, 10	T3 - *"Until now, many of our teachers graduated from university and got involved with computers in terms of passing courses. But now, whether it's the internet or computer programs, teachers need to be more aware of it. He has to make more effort. Inevitably, we have improved ourselves."*

As seen in Table 3, various codes have been created based on the teachers' answers regarding the positive aspects of online applications. Two of the teachers stated a positive opinion about the control of the learning environment, and therefore the classroom management. T13 and T16 stated an opinion focused on classroom management. T13 stated their views on this subject as *"There may be students who do not keep quiet while in the classroom. We can silence it online."* expressed in the form. T11 stated the following about the possibility of addressing more than one sense, which the teachers stated as a positive opinion: *"They like it, whether it's digital or visual. They do not stay abstract, they become concrete. We teach them unnoticed under the name of the play."* One of the teachers who stated his opinion about the code for eliminating the environment problem, T15 said *"... I do it in the environment I want, I do not have to go to school. It prevents waste of time."* He stated that the lack of necessity to be in a certain environment also saves time. T15 mentioned that *"Students have different intelligence types, I could not make it possible to*

appeal to all of them in school, but I am engaging attention of more students by using technology and materials." He mentioned that online environments offer diversity. When looking at the data obtained, it can be considered that the code to address multiple senses is due to the variety of materials offered by online environments.

The findings obtained from the teachers' opinions about the positive aspects of blended learning in-class applications for the teacher are presented in Table 4.

Table 4. Theme 4: Positive aspects of classroom practices for teachers

Codes	Frequency-Teacher Code	Quotation
More effective communication	(15) T3, 4, 5, 6, 7, 8, 9, 10, 11, 14, 15, 16, 17, 18, 20	T 17 - *"Face-to-face training is much more beneficial and useful to strengthen our communication and to establish a connection outside of the classroom."*
Instant feedback and correction	(6) T3, 5, 12, 14, 17, 19	P19 - *"Children missing CPCs whether more quickly and realize the mistakes, faster I can fix it."*
Don't run the environment to work	(1) T2	S2 - *"We need to benefit the possibilities around us. Various activities can be done in the social environment. "*
Observing student feelings and thoughts	(2) T5, 8	S5 - *"You can contact the student face to face. You can follow the student's emotion at that moment. The child comes to school, you can reach if he can. Making eye contact with the child… Talking about something that comes to the child's mind at that moment… The classroom environment is very different. "*
Preventing unwanted student behavior	(4) T1, 3, 5, 12	S12 - *"It seems like it is easier for you to control the classroom. One situation did not work. It is easier for you to notice it and you can immediately turn it into something else. It's getting more difficult on the internet. "*
Providing the teacher with the opportunity to improve themselves	(2) T9, 18	T 9 - *"In this sense, it enables the teacher to improve himself."*

As seen in Table 4, teachers generally see the classroom as a more efficient communication and interaction environment. Teacher T7 said, *"The interaction in the classroom is more because it is face to face. You can understand him even in gestures because he sees each other. "* He stated his opinion in the form. T16 said, *"We communicate with students one to one."* expressed in the form. T8, one of the teachers, drew attention to observing the students and *said, "Yes, I can see the reaction of the child from a distance, but it is up to me to be with him at that moment and to increase his reaction and to reduce it. Being in the classroom also has such an advantage. "* He stated his opinion in the form. Regarding the code of preventing unwanted student behavior, one

of the positive aspects of sharing the same environment with students, teacher T3 said, *"You can provide discipline as a teacher in the classroom."* used the expression.

The findings obtained from the teachers' opinions about the negative aspects of online applications of blended learning for the teacher are presented in Table 5.

Table 5. Theme 5: Negative aspects of online applications for teachers

Codes	Frequency-Teacher Code	Quotation
Insufficiencies in the technical infrastructure	(9) T1, 3, 6, 11, 14, 15, 16, 17, 18	T1 8 - *" Infrastructure and connection problems always occur."*
Increased workload	(5) T3, 6, 7, 10, 14	T1 0 - *"I have to find more material. In the classroom, he was teaching with a photocopy and a book. Here, more work was required in online education."*
Limiting communication	(4) T7, 8, 15, 20	T8 - *" The online environment keeps us away from being face to face.."*
Not reaching every student	(9) T3, 4, 5, 10, 14, 15, 16, 17, 19	T15 - *" I do not think all my students have technological materials."*
Inability to interfere with misconceptions.	(3) T12, 14, 19	T19 - *" We try to support them as much as possible with activities, but I cannot fix their mistakes faster."*
Screen addiction anxiety	(1) T9	T9 - *"I am afraid of this the most, I wonder if I increase the habit of watching television?"*
Distractions in the environment	(2) T1, 15	T15 - *"They may not have a suitable environment. Sometimes I do not even realize they're listening to the lesson. "*

As can be seen in Table 5, it is concluded that most of the teachers agree on infrastructure and connection problems and not reaching every student in terms of negative features of online environments. One of the teachers, T11, *"There may be technical problems, internet may not be available. There may be trouble. Students may not adapt. Not all of them can be coordinated at the same time. "* He mentioned another disadvantage created by this negativity. Another code created based on teachers' opinions is the increase in teachers' workload. Regarding this situation, T6 said, *"I always send messages before starting the lesson. I am looking for them. I wake up. I must guide a few students as if their parents were me. The burden has increased on me. "* He stated his opinion as. T15 *"Not being face to face gives the feeling of talking to myself."* He expressed the negative effect of online environments on teacher-student communication. T14's views on the negative aspects of the online environment *"We can use it within the means and skills. Information pollution can also cause many misconceptions."* conveyed in the form. T13 asked the question *" I think it has no negative side."* answered as.

The findings obtained from the teachers' opinions about the negative aspects of the in-class applications of blended learning for the teacher are presented in Table 6.

Table 6. Theme 6: Negative aspects of in-class practices for teachers

Codes	Frequency-Teacher Code	Quotation
Disciplinary problems experienced.	(5) T1, 5, 9, 16, 17	T6 - *"They are too much fused among themselves. In that sense, problems may arise regarding discipline. "*
Limitations in teaching methods	(7) T2, 4, 11, 12, 13, 15, 18	T2 - *"It completely restricted our methods. We will involve the child. The child will always be at the center. He will do, he will, he will tell if necessary. When it gets stuck, we'll help. "*
		T8- *"Because of our age group, your eye has to be constantly on top… You have to be very alert. It is tiring.*
Physical fatigue	(1) T8	

As can be seen in Table 6, the negativities of the classroom environment are generally gathered around two codes: disciplinary problems and limitations in teaching methods. Teacher T9 said, *"The students are not interested in the lesson. Either they start talking to someone or start to play with the materials they have. Learning is not permanent*." Most of the teachers reached a consensus on the limitations of the methods and techniques that can be used in the classroom. One of the teachers, T8, stated that the classroom learning environment caused more physical fatigue for the teacher and described this situation as negativity. Teachers T7 and T10 stated that the classroom environment has no negative features. Teachers T3, T6, and T20 could not express an opinion about the negative aspects of classroom practices in terms of teachers, and the data obtained were sorted out.

The findings obtained from teachers' opinions about the positive aspects of online applications of blended learning for students are presented in Table 7.

Table 7. Theme 7: Positive aspects of online applications for students

Codes	Frequency-Teacher Code	Quotation
Addressing students with more sense organs and different types of intelligence	(4) T2, 8, 12, 15	T 12 - *"The possibility of learning increases. The subject would typically be complex for him, but it will close the gap as more sense organs are involved. "*
Providing permanent learning	(3) T2, 9, 12	T 2 - *"It increases possibilities and provides permanent learning. "*
Making the lesson more fun and interesting for the student	(6) T8, 9, 11, 13, 14, 17	Item 11 - *" Intriguingly, this time staying fresh and what do we do about such Is this what will be a new game will be finished. "*

More motivation and participation	(4) T4, 9, 15, 18	T9 - *"The boy says he has fun. He says he enjoys the lesson when we use such applications. He is more willing to attend. "* Item 14 - *" IR can look back on that moment where the stem attached."*
Learning independent of time and place	(10) T1, 2, 3, 5, 7, 10, 14, 16, 19, 20	T15 - *"We use the blessings of technology. We prepare it by making it available to students ... We should use technological tools to pass this age and keep up with the next era. "*
To gain the ability to use technology actively	(3) T2, 10, 15	

As seen in Table 7, the code with the highest frequency among teachers' views on the contributions of online environments to students is that learning is provided independently of time and place. In this regard, T16 said, *"Knowledge is not received only from the school teacher. They can reach more resources. The only source of information is not the teacher, it does not depend on the teacher."* It drew attention to the awareness of students on this issue as well as ensuring that students learn independently of time and place. The T19 *" He tries to take responsibility and enter the class on time, he is responsible for his learning. They share our responsibility."* he also mentioned the consciousness that the student can reach the information at the desired place and time. Besides, opinions regarding continuing education even under adverse conditions were included in the learning code independent of time and place. T1 *"During the pandemic process, the possibility of being sick decreases, we reach those in quarantine. He can watch the lesson he missed and make up for it."* and T3 *"There may be sick students who cannot come to school. At least it is important to follow the lesson. One is not get left behind. He teaches as if he was in the classroom, as in the classroom environment. "* It can be said that the perception of learning independent of time and place has two different views: ease of access to information and the opportunity to educate at any time and in any situation.

Regarding the effect of online environments on student participation, T15 *"When I ask a question in the classroom, I only get an answer from that student, but in this way, everyone attends the class simultaneously."* made the explanation. Regarding the acquisition of the ability to use technology actively, T10 *"Children learned that education can be maintained with technology. Thanks to this, they were introduced to the concept of distance education, which we do not even think will be successful in the first place, and maybe this will encourage them because they want to realize it in the future. "*He emphasized the ability to use technology and its effect in the future.

Discussion and Conclusion

This study aimed to receive teachers' opinions about blended learning using the case study design. The findings obtained from the opinions of twenty teachers from different public schools are presented with descriptive analysis. In this section, the results obtained based on the findings obtained within the scope of the research are included.

In the findings obtained from the teachers' opinions about the definition of blended learning, it was concluded that they did not have sufficient knowledge about the learning approach. Teachers who stated opinions made definitions based on predictions. This situation may be associated with the teachers not participating in in-service training for blended learning. All the teachers whose opinions were consulted in the study stated that they did not receive in-service training for blended learning. The study conducted by Tosun and Özaydınlı (2020) supports this situation. In this study based on teachers' opinions, it was concluded that the teachers did not have information about blended learning and that the reason for this was the lack of in-service training on blended learning by the Ministry of National Education.

In line with the findings obtained from the teachers' opinions about the performance of blended learning, it was concluded that the online dimension of blended learning was a contributor to face-to-face education rather than being the central element of the learning approach. Aksoğan's (2011) research supports this perception. Another result is that teachers consider whether the lessons are synchronous or not in the planning of online environment applications. In addition to using online environments for lesson preparation or repetition, summary, and reinforcement purposes, teachers generally transfer new information to students in synchronous lessons they perform through online platforms. Blended learning aims to achieve the most efficient outcome by taking advantage of both face-to-face and online environments. For this reason, teachers should make good plan for the situations they will use in the face-to-face classroom or online environment.

The opinions of teachers about the positive aspects of online learning environments for the teacher are gathered around the topics of addressing more than one sense, eliminating the environment problem, offering material, content, sample, and application variety, reducing the workload of the teacher, and saving time. It can be said that addressing more than one sense depends on the variety of content offered by online environments. In the literature, studies are supporting the findings on the benefits of online environments (Ceylan, 2015; Ünsal, 2007).

The most striking finding in the opinions of teachers on the positive aspects of the classroom environment, which provides the opportunity to realize the teacher-student interaction of blended learning face to face, was the more effective communication. The conclusion that Mahiroğlu and Usta (2008) reached in their study, in which they examined the effect of blended learning and online environments on academic achievement, supports this situation, that technological resources should not cause neglect of the classroom environment. Thanks to the benefits it provides face to face interaction, it also has the feature of increasing academic success.

The striking points in teachers' opinions about the negative aspects of online environments for the teacher are the impracticability to reach every student, inadequacies in technical infrastructure, increase in workload, and limitation of communication. The annoyance of the teacher about not being able to reach every student in online environments stems from the difference in the opportunities available to the students. Inadequacies in technical infrastructure include connectivity problems and limitations in internet use, and this problem is parallel to the

related literature (Mahiroğlu and Usta, 2008; Ünsal, 2010; Üstün, 2011). Although it is predicted that online environments will reduce the workload due to the variety of content and the elimination of the environment problem, teachers stated that one of the negativities at this point is the increase in the workload. Tosun and Özaydınlı (2020) stated that it is resulted from problems in teachers' use of information technologies. It can be said that while reducing workload is one of the results obtained in the question of the positive aspects of online applications for teachers, the answer to the question of the negative aspects of online applications for teachers is due to the difference between teachers' skills and experiences of using technology. Besides, seeing communication as one of the positive aspects of the classroom environment may cause it to be perceived as a deficiency in the online environment.

Teachers' negative opinions about classroom environments were expressed about limitations in teaching methods and disciplinary problems experienced. The reflection of the technological developments experienced in education has evoked awareness of situations that cannot be regarded as a problem under normal conditions. The divergence of educational environments from traditional boundaries makes it easier to encounter.

In the findings obtained from the teachers' opinions about the positive aspects of online environments of blended learning for students, the view with the highest frequency is learning independent of time and place. The fact that online learning environments provide ease of access to information and the opportunity to receive education at any time and in any situation provides learning independent of time and place. The convenience advantage in accessing the information provided by blended learning was also mentioned in the study of Uluyol and Karadeniz (2009) and this is similar with the result of this research. In the relevant literature, the same result was encountered in different studies (Batdı, 2014; Üstün, 2011). It can be thought that online applications increase motivation and participation in the lesson, making the lesson more enjoyable and interesting with reference to the findings of the research. The significant finding that Sarıtepeci and Yıldız (2014) obtained in their study examining the effect of blended learning on motivation and participation in class supports this view. A similar result can be found in Yılmaz's (2018) study. In this study, in which the advantages of blended learning were examined, it was stated that enhancing class participation took the first place. The finding of addressing more senses obtained in the opinions about the positive aspects of online environments for the teacher is also within the scope of positive aspects for the student. In the findings of the positive aspects of online learning for the student, there are also opinions that it provides permanent learning. These findings obtained Mahiroğlu and Usta's (2008) research is parallel to the line. With reagard to the data obtained, online learning environments have a positive effect on the permanence of knowledge as well as academic success. Gaining the ability to use technology actively is seen as another positive outcome. In the literature, some results support this finding (Ceylan, 2005).

Teachers' views on the positive aspects of classroom learning environments for students consist of three main findings: communication, socialization, and peer learning. There are studies with similar results regarding the communication dimension (Ceylan, 2005). The fact that the classroom environments allow student-student interaction enables peer learning to take place. The finding mentioned is similar with the results of the research in the literature (Çırak, 2017; Üstün, 2011).

Major findings about teachers' views regarding to the negative aspects of the online environment of blended learning in terms of students are those not every student's having

opportunity to benefit from it, problems in technical infrastructure, inability to gain behavior, and insufficient use of technology. Not every student can benefit, and families have different conditions and possibilities. The results regarding the problems in the technological infrastructure and the insufficiency of the skills for technology use are encountered in the literature (Ceylan, 2005; Mahiroğlu and Usta, 2008; Ünsal, 2010; Üstün, 2011).

Considering the findings obtained from the teachers' opinions about the negative aspects of blended learning in terms of students, it is seen that they stated that no environment would enable the student to discover and develop their abilities and that there were many distractions. When the literature is examined, in addition to these findings, it is concluded that crowded classes cause negativity in practice (Tosun and Özaydınlı, 2020). Also, some of the participating teachers could not accurately comment on this question of the study. It can be thought that the reason for this situation is that the traditional classroom environment is a familiar learning and teaching environment for teachers and cannot be affected negatively because of ordinary problems.

In line with the findings about teachers' views related to their teaching role in blended learning environments, teacher is not regarded as the sole source of knowledge and also teacher oriented process is no longer so focused. The results obtained are parallel to the literature in the field (Çırak, 2017; Üstün, 2011; Ocak, Üstün, and Apaydın, 2010). Blended learning can respond to modernization efforts in education with its innovative aspect within educational approaches. For this reason, it is usual to reach the results of focusing the learner on the center, not the teacher, and seeing the teacher as the guide in reaching the information, not the transmitter.

The findings obtained from the teachers' opinions about the platforms they use for blended learning, which is the last problem of the research, show that there is a limitation in this sense. It can be thought that the factors that cause this are the teachers' not having enough knowledge about blended learning and their insufficient proficiency in using technology. All the teachers in the Ministry of National Education stated that they use the system developed by the online social learning platform Education Information Network (EBA). Tosun and Özaydınlı (2020) stated in their research results that most of the teachers did not use the EBA system. It can be said that this difference is since, in the Covid-19 process, distance education was carried out via EBA. The participant teachers stated views confirming this thought. Most of the teachers stated that they also use social networks because they provide fast communication with their students. However, it would be more appropriate for teachers to use different online platforms to increase the effectiveness of teaching.

Although it is seen that different applications of blended learning have different positive and negative aspects in terms of teachers and students, appealing to more than one sense organs and improving the ability to use technology are the common points of online applications in a positive sense. Communication is the positive common feature of classroom practices for both parties. The deficiencies in technical infrastructure draw attention to the common negativity of online applications. Blended learning is defined as an educational approach that offers effective learning experiences by bringing together the most beneficial aspects of face-to-face and online learning environments, and when all these are considered, it should be based on eliminating the negativities in planning blended learning following its purpose.

Recommendations

In this part of the study, suggestions for blended learning practices are presented in the light of findings and results.

One of the most striking points in the research results is that the teachers do not have enough knowledge about blended learning. It was concluded that this was related to the fact that they did not receive in-service training for blended learning which is another result of the research. Based on these, in-service training for blended learning can be organized by the Ministry of National Education Directorate of Teacher Training and Development, enabling as many teachers to benefit as possible. Considering the limitation of teachers' use of platforms for blended learning, it can be thought that the introduction of applications should be added to the scope of education.

It is observed that teachers have problems about their competence in using technology in online applications of blended learning. For this reason, it should be worked on the goal of improving teachers' proficiency for using technology more effectively.

The level of proficiency in using technology effectively is a problem that concerns students as well as teachers. Online learning environments are above all a learning environment where students feel themselves unfamiliar. To increase the effectiveness of their teaching, students can be provided with training to get accustomed to the online learning environment, as well as opportunities to improve their ability to use technology. Students can also be provided with guidance about applications where they can access accurate and reliable information.

The teachers' facing problems because of technical infrastructure directed them to approach blended learning in a biased manner. In such cases, units can be established to minimize the problems to be experienced.

Blended learning is an approach that includes face-to-face education, based on the idea that education should not be devoid of student-student and student-teacher interaction. For this reason, studies for improving in-class applications are as important as improving online environments. Efforts can be made to eliminate the negativity of the classroom environment.

References

Akkoyunlu, B., & Soylu, M. Y. (2006). A study on students' views on blended learning environment. *Turkish Online Journal of Distance Education*, 7(3), 43-56.

Aksoğan, M. (2011). *Blended learning can be found in students' academic achievements and effect permanently in learning* (Unpublished master's thesis). Fırat University, Institute of Educational Sciences, Elazig.

Allen, I. E., & Seaman, J. (2015). *Grade Level: Tracking Online Education in the United States*. Babson Survey Research Group.

Arkorful, V., & Abaidoo, N. (2015). The role of e-learning, advantages, and disadvantages of its adoption in higher education. *International Journal of Instructional Technology and Distance Learning*, 12(1), 29-42.

Balcı, E. (2017). *Perceptions on blended learning: a study on student and instructor Experiences in an English preparatory program* (Master's thesis). Accessed from the National Thesis Center database of the Council of Higher Education. (Thesis No. 454676).

Batdı, V. (2014). Harmanlanmış öğrenme ortamlarının öğrencilerin akademik başarılarına etkisi: Bir meta-analiz çalışması [The academic achievements of blended learning environments effect: A meta-analysis study]. *Çankırı Karatekin Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 12(1), 287-302.

Bodur, A. G. (2019). *An evaluation of the blended learning program of Ankara Yıldırım Beyazıt University preparatory school based on students "and instructors" perspectives* (Master's thesis). Accessed from the National Thesis Center database of the Council of Higher Education. (Thesis No. 564680).

Çardak, C. S. (2012). *Harmanlanmış öğrenme sürecinde öğrencilerin etkileşimlerinin ve öğrenme düzeylerinin incelenmesi [In the blended learning process, students' interactions, and examination of learning levels]* (Doctoral thesis). Accessed from the National Thesis Center database of the Council of Higher Education. (Thesis No. 312608).

Ceylan, V. K. (2015). *Impact of blended learning method on academic achievement* (Master's thesis). Accessed from the National Thesis Center database of the Council of Higher Education. (Thesis No. 394909).

Çırak, P. (2017). Bir harmanlanmış öğrenme deneyimi [A blended learning experience]. *Elementary Education Online*, 16(2).

Draffan, E. A., & Rainger, P. (2006). A model for the identification of challenges to blended learning. *ALT-J*, 14(1), 55-67.

Drucker, P. F. (1996). New facts. (B. Karanakçı, Cev.). Ankara: Is Bank Publications.

Garrison, D. R., & Vaughan, N. D. (2008). Blended learning in higher education: framework, principles, and guidelines. John Wiley & Sons.

Gates, B. (1999). Working at the speed of thought with the digital nervous system. (A.C. Akkoyunlu Çev.). Istanbul: Dogan Bookshop INC.

Graham, C. R. (2006). The handbook of blended learning: Global perspectives, local designs, John Wiley & Sons.

Gülbahar, Y. (2017). E-learning. Ankara: Pegem Publications.

Gürbüz, S., & Şahin, F. (2014). *Research methods in social science.* Ankara: Distinguished Publishing.

Hebebci, M. T., & Usta, E. (2015). Türkiye'de harmanlanmış öğrenme eğilimleri: Bir literatür çalışması [Blended learning trends in Turkey: A literature review study]. *Adıyaman Üniversitesi Sosyal Bilimler Dergisi*, 8(19), 195–219.

Karaotcu, I., & Baran, B. (2019). Made within the framework of blended learning in Turkey Studies. Full-Text Paper Book, 68-73.

Kırmızı, Ö., & Yapıcı, K. (2019). Turkish EFL teachers' views on blended learning: A qualitative analysis. *Journal of The Social and Humanities*, 3(1), 31-41.

Mahiroğlu, A., & Usta, E. (2008). Blended learning and online learning environments academic achievement and effect on saturated. *Ahi Evran University Kırşehir Faculty of Education Journal*, 9(2), 1-15.

Marvasti, A. B. (2004). *Qualitative research in sociology*. London: Sage Publications Ltd.

Maxwell, J. A. (1992). Understanding and validity in qualitative research. *Harvard Educational Review, 62*, 979-1000.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis* (2nd ed.). Thousand Oaks, CA: Sage Pub.

Ocak, M. A., Üstün, A. B., & Apaydın, S. M. F. (2010). Harmanlanmış öğrenme ortamlarında etkileşimsel ilişkinin akademik başarıya etkisi: Alanyazın incelemesi. In 4th International Computer and Instructional Technologies Symposium. Konya: Selçuk Üniversitesi.

Oh, E. (2006). Current practices in blended instruction (Unpublished Doctoral Thesis). Tennessee Üniversitesi, Knoxville.

Patton, M. Q. (1987). Qualitative research and evaluation methods. Ankara: Pegem A Publications.

Sarıtepeci, M., & Yıldız, H. (2014). The blended learning environments are an examination of the effect on participation and motivations against the course. Ahi Evran University Kırşehir Faculty of Education Journal, 15(1), 207-223.

Singh, H., & Reed, C. (2001). A white paper: Achieving success with blended learning. Centra software, 1, 1-11.

Tosun, E. A., & Özaydınlı, F. B. (2020). Teacher opinions on the applicability of the 2017 Secondary education English curriculum based on the blended learning approach. *Eğitimde Nitel Araştırmalar Dergisi,* 8(2), 686-713.

Uluyol, Ç., & Karadeniz, Ş. (2009). Example of a blended learning environment, student achievement, and his views. *Centenary University Faculty of Education Journal*, 6(1), 60-84.

Ünsal, H. (2007). *Multiple levels of blended learning activity evaluation*. (Unpublished Doctoral Thesis). Gazi University, Institute of Educational Sciences, Ankara.

Ünsal, H. (2010). A new learning approach: blended learning. *National Education Magazine*, (40)185, 130-137.

Üstün, A.B. (2011). *Given in blended learning environments of BÖTE faculty members' opinions on courses* (Master's thesis). Accessed from the National Thesis Center database of the Council of Higher Education. (Thesis No. 290750).

Yıldırım, A., & Şimşek, H. (2018). *Sosyal bilimlerde nitel araştırma yöntemleri [Qualitative research methods in social science]*. Ankara: Distinguished Publishing.

Yılmaz, Ö. (2018). Fen öğretiminde harmanlanmış öğrenme: avantajlar ve öğrenci alışkanlıkları [Blended learning in science teaching: benefits and student habits]. *Hitit University Institute of Social Sciences Journal*, 11(3), 2111-2121.

Yolcu, H. H. (2015). Blended (mixed) learning and implementation principles. *The Journal of Academic Social Science Studies*, 33, 255-260.

International Journal of Educational Studies and Policy (IJESP)

Volume: 2, Issue: 1 May, 2021

Primary School Third Grade Students' Views on Gender Roles

Behiye Dağdeviren Ertaş[1]

ABSTRACT

The problem of this research is to determine the third-grade students' views on gender. In this study, the phenomenology design, one of the qualitative research designs, was used. Research participants of Turkey in the same grade level from elementary school in the public school within the state depends on a city in Central Anatolia constitute studying 18 children. Data were collected through semi-structured interview questions created by the researcher and for which expert opinions were obtained. The researcher carried data collection out visiting three schools. In this study, which examines primary school third-grade students' opinions on gender perceptions, a "continuous situation comparison" was made. The study determined that children make choices suitable for their gender in their game preferences. Another finding of the study is that children think that professions that require more strength and endurance are specific to men. As a result of the research, families should be role models for their children to develop a positive gender perception and stay away from behaviors that support gender discrimination.

Keywords: Gender, primary school, third grade, profession.

Article History: Received 01.03.2021 **Accepted 27.04.2021**

Cite as: Ertaş. B. D. (2021). Primary school third grade students' views on gender roles. *International Journal of Educational Studies and Policy*, *2*(1), 60-70.

[1]Corresponding Author: Dr. Behiye Dağdeviren Ertaş, Yozgat Bozok University, behiyeertas5884@gmail.com, ORCID: 0000-0003-2431-1914

Introduction

Men and women are biologically different beings. However, beyond biological differences, many cultures attribute different roles and behaviors to individuals due to gender. These differences, which develop in society and with social pressure, are shaped by culture, family and society. The presentation of gender roles is essential in shaping children's gender thoughts. Gender indicates socially determined roles, behaviors, activities, and qualities deemed appropriate by the society for men and women (World Health Organization, 2014). Gender is a cultural category and describes the shared beliefs of a particular culture about what is masculine and what is feminine. It is possible to call this body of beliefs as gender ideology (Kellner, 2007). Gender, which cannot be explained by biological sex, has a meaning associated with social class, politics, patriarchy, and the mode of production in society (Savcı, 1999). Women's roles turn into stereotypes, such as being submissive and men's roles being dominant. These gender roles start in early childhood and continue until adolescence (Eagly, Wood, and Diekman, 2000). The concept of gender, which refers to the social positions and personal characteristics that members of the society attribute to being a woman or a man, is a dimension of social organization that shapes how we communicate with others and how we think about ourselves (Macionis, 2012). Educational institutions, on the one hand, help to reflect and transfer sexual role stereotypes through teacher attitudes and program approaches; on the other hand, by separating the areas suitable for girls in terms of type, duration, essence, prevent them from participating in economic life equally and effectively (Tezcan, 2017).

Gender roles include personality traits and culturally-appropriate behaviors for men and women in society, which are often transformed into stereotypes by society (Basow, 1992). Gender roles differ among societies according to time and place and shaped according to the culture inhabited (Trommsdorff and Iwawaki, 1989). According to Butler (2009), gender is a mechanism by which masculine and feminine concepts are produced and naturalized.

With the active participation of women in business life, men and women's differentiated roles traditionally based on family structure seem to have given way to gender roles based on sharing (Chodorow, 1978). The social life sphere is divided into two social spheres (public and private spheres) where men and women do different jobs based on a gender-based division of labor, which cannot be attributed to the sexes' different biological characteristics (Rendall, 1999). In this division of labor, men's actions are considered more valuable than women's actions (Chodorow, 1989; Wajcman, 1991). In the public sphere where women exist little, men dominate. It is defined as the decision-making area in most societies (MacKenzie and Wajcman, 1985). Those who see gender roles as important in the workplace have different expectations from men and women working for the same job. (Eagly and Karau, 2002). However, women take part in the private sphere defined for them. The major task is determined as motherhood and housework (Chodorow, 1978). This area is stereotypically inferior. Even if motherhood is blessed with eloquence, this brings both economic weakness and dependency on the "breadwinner" man (MacKenzie and Wajcman, 1985). According to Bourdieu (2014), the inequality dimension of the relationship between men and women is realized and reproduced through society's values, practices, habits, and beliefs. We can encounter gender discrimination in almost all countries of the world. However, its violence and indicators differ (Pratto and Walker, 2004). The qualities that are equivalent to the concept of 'femininity' in society are qualities related to femininity at first hand rather than an equal, independent, and unique

individual. A woman, who is thought to represent femininity, is primarily attributed to "wife," "mother," or "a member of the family" (Bingöl, 2014).

Gender-based inequalities can be encountered in many areas such as human dignity, economic distribution, benefiting from educational opportunities and opportunities, social roles, and division of labor (Sezal, 2017). Working both at home and outside required the woman to work a couple of hours. Today, within the framework of social changes, the idea that raising children with housework belongs only to women and economic activities only to men has lost its validity. Education may prepare women to contribute to all kinds of public duties and men equally and effectively (Tezcan, 2017). Therefore, it should be seen as the most effective way to ensure that men and women, who have the same educational abilities, skills, and needs, share the responsibilities and powers traditionally given to them (Tan, 1979).

For this reason, any kinds of education can be given to children, whether at home or school, are essential in creating a social order based on gender equality. First of all, it is considered essential to ensure gender equality in education. The aim of this research is to determine how third-grade students' views of gender. Within the major problem, the following questions were sought in the study.

- ✓ How are third-grade students' choice of friends in terms of gender?
- ✓ What are the game choices of third-grade students?
- ✓ What are the opinions of third-grade students about professions?
- ✓ What are the responsibilities of third-grade students at home?

Method

The research model, study group, data collection tools, data collection, and analysis are included under this heading.

Research Model

In this study, phenomenology design, one of the qualitative research designs, was used. Phenomenology focuses on phenomena that are defined and recognized in terms of the experiences of individuals or a particular group but cannot have a detailed and in-depth understanding (Yıldırım and Şimşek, 2016). Since the study aimed to reveal the participants' perceptions and experiences, descriptive phenomenology approach was used (Ersoy, 2018). It aims to describe individuals' experiences with different experiences in phenomenological research (Creswell, 2019). In phenomenological studies, it is revealed that the participants feel, think and perceptions about their experiences in their lives and how they construct them and create a state of consciousness (Patton, 2002).

Study Group

The study group of the research consists of 18 students studying in the third grade of primary school. The study participants were determined by the maximum diversity sampling method, one of the purposeful sampling methods. In purposeful sampling, researchers purposefully select individuals to learn about the primary phenomenon or understand it (Creswell, 2019). Maximum diversity sampling defines as the determination of similar and different situations regarding the problem studied in the universe and the study of these situations (Büyüköztürk et al. 2012). The study group consists of third-grade students from three schols whose socioeconomic and sociocultural levels are low, medium, and high. Interviews were conducted with a total of 18 participants, three girls and three boys from all levels.

Data Collection Tool

Data were collected through semi-structured interview questions deveoped by the researcher and expert opinions were obtained. The form includes questions such as: “Which game do you like to play the most? Why is that?” Regarding the professions that children think to be specific to men and what their domestic responsibilities there are questions such as: "Are there any professions that only men can do? Why is that? Since you are a boy or a girl, are there any jobs/things at home that are expected from you in particular?".

Data Collection

The data were collected by the researcher visiting three schools. All interviews were collected by signing a parent consent form from each participant's parent. The data were recorded in the researchers' mobile phone with the parents' permission. The records were later deciphered and signed by the parents.

Data Analysis

In this study, "continuous situation comparison" has been made. In continuous situation comparison, contrasting situations can be selected and compared, or differences in similar situations can be determined. Variation in terms of the words used can be examined with the analysis. For a situation, it is examined how it changes and diversifies among events or situations (Glesne, 2020). The researcher made the first coding independently and analyzed the data. In the analysis, the answers of the participants were read. Codes that were thought to be similar were noted, and then they were combined. Each research question was tabulated with it, and frequencies were included, too. Samples from participants' statements are given below the tables. Participants were coded as K for girls, E for boys; and to express their socio-economic status, each student was numbered by indicating the letters D for low socio-economic level, O for middle and Y for high. For example, the KD1 code was given for the first female student from low socio-economic level.

The validity and reliability were ensured in the study. Preparing the semi-structured interview form by taking expert opinion, voluntary participation of the participants and recording with their permission are the criteria of credibility. Transferring the data faithfully to its nature and choosing the maximum diversity sampling method met the criteria of transferability. To meet the approvability criteria, the researcher first made her evaluations, and then an interview transcript was sent to an education management expert and asked to code. Then, by comparing the codes, it was examined whether the judgments and results coincided. Data analysis was completed with consensus on non-overlapping results.

Results

Regarding the first sub-problem, students were asked to name their favorite friends. ED1, ED2, ED3, EO1, EO2, EO3, EY1, EY2, EY3 gave the names of 3 male students. Third-grade students enjoy making friends from both genders. This situation cannot be evaluated only with social gender roles. In middle childhood, the friendship between girls and boys is based on gender. During this period, girls establish friendships with their gender and boys with their own (Berk, 2013). It can be said that the social development characteristics of the age group are also useful in choosing friends. In middle childhood, girls often get together to talk. Boys come together for activities such as sports or competitions (Berk, 2013).

In Table 1, students were asked what their favorite games are within the scope of the second research question. Students' views are presented in the table.

Table 1. Students' favorite games

Game	Frequency	Percent	Student
Football	7	%39	ED1,ED2,EO2,EO3,EY1,EY2,EY3
Hide and seek	4	%22	KD3, ED3,KO3,EY2
Computer games	4	%22	KY1, KY3, EY2, EY3
House keeping	3	%16	KD2, KO2, KY3
Car race	3	%16	ED1,EO2,EY1,
Skipping rope	3	%16	KD1,KO3, KY2,
Chase	2	%11	KD1,ED1,
Bike race	2	%11	EO1,EY2
Hopscotch	1	%6	KD1,
Mandala	1	%6	KY3

As seen in Table 1, it is seen that the game that males like to play the most is football (f = 7). Both males with low socio-economic status and high status stated that they liked football very much. Again, girls with low socio-economic and high socio-economic status expressed games such as housekeeping (f = 3) and skipping rope (f = 3). Other games mentioned by males are car racing (f = 3) and bicycle racing (f = 2). Both girls and boys stated video games. However, the remarkable point here is that children with a high socio-economic level expressed opinions about computer games (f = 4; KY1, KY3, EY2, EY3). The opinions of the participants on this issue are as follows;

My favorite game with my friends is soccer. We often play games with the kids in the apartment on weekends. It is enjoyable. I also love racing toy cars with my brother. Since we cannot play ball at home, we play car racing at home. (EO2)

Even though my mother says I have grown up, I still love playing house. I love dressing up my babies and making clothes for them. We play very fun with "E." "E" is my friend from the apartment. I wish we could play every day even if we do not have homework. (KY3)

Table 2 presents the professions that only men do, according to student views.

Table 2. Student views on male-spesific occupations

Profession	Frequency	Percent	Student
Driver	9	%50	KD1, KD2, KD3, ED1, ED2, KO3, EO1, EO3, EY3
Mechanic	8	%44	KD1, ED2, KO1, EO1, KY2, EO1, EY1, EY3
Plumber	4	%22	KO2, EO1, EO3, KY2
Construction master	4	%22	KO1, KO2, EO1, EY1
Gas station worker	3	%16	KD1, EO2, KY3

Electrician	2	%11	K2, EO2, EY3
Miner	2	%11	KY1, EY2
Butcher	2	%11	KD2, ED3
Delivery	2	%11	KO3, EY1
Manager	1	%6	KD1
Greengrocer	1	%6	KD2
Pilot	1	%6	EO1
Commander	1	%6	EO1
Racer	1	%6	EO2

When Table 2 is examined, the professions that both male students and female students stated as male-specific professions are: driver (f = 9), mechanic (f = 8), construction master (f = 4), plumber (f = 4), gas station worker (f = 3), electrician (f = 2), miner (f = 2) and butcher (f = 2). Cargo man (f = 1) manager (f = 1), greengrocer (f = 1), pilot (f = 1), commander (f = 1) and racer (f = 1) are also specified as male-oriented professions. It is observed that students with different socioeconomic levels have determined professions such as driver, repairman, construction worker, gas shop, electrician, miner and butcher specifically for men. The opinions of the participants are as follows;

> *There are many professions that only men do. For example, I have never seen a woman as a car mechanic, truck driver, gas station worker or manager. Truck drivers go a long way, women can't go that long. If they go and have children at home, they both miss them and they cannot meet their needs by themselves (KD1).*
>
> *Driver, gas station worker, plumber, builder, repairman (EO1).*

Table 3 presents the professions of both men and women according to student views.

Table 3. Professions of both men and women

Profession	**Frequency**	**Percent**	**Student**
Doctor	14	%78	KD1,KD2,KD3,ED1,ED2,KO1,KO2,KO3,EO1,EO2, EO3,KY1,KY2,KY3
Teacher	8	%44	KD1,KD2,KD3,ED1,ED2, ED3,KY2,KY3
Banker	5	%28	KO3, EO2,KY3,EY1,EY2
Engineer	5	%28	EO2,EO3,KY1,EY2,EY3
The deputy director	4	%22	KO1, EO2, EY1,EY3,
Security	2	%11	KO1, EY1
Police	2	%11	EO1, EO2,
Officer	2	%11	KY2, EY3,
Judge	1	%6	EO3
Prosecutor	1	%6	EO3
Lawyer	1	%6	EO3

Cashier	1	%6	KY1,
Architect	1	%6	EY1,
Secretary	1	%6	EY2
Hairdresser	1	%6	KO2

When Table 3 is examined, it is seen that both male students and female students expressed most as the professions of both men and women as doctor (f = 14), teacher (f = 8), banker (f = 5), engineer (f = 5) and deputy director (f = 4). The occupations which are doctor and teacher expressed by students draw attention to high socioeconomic-level, middle and low students. However, students expressing their opinions as bankers, engineers, deputy directors, security, police officers, judges, prosecutors, lawyers, cashiers, architects, secretaries, hairdressers are at medium and high socioeconomic levels. The opinions of the participants are as follows;

Both men and women can also be teachers, doctors, engineers, judges, prosecutors, lawyers. We see it in the movies. It already exists around us. EO3

Table 4 presents the opinions of the students about the jobs they help at home.

Table 4. Students helping roles at home

İşler	**Frequency**	**Percent**	**Student**
House cleaning	5	%28	KD3,KO1,KY1,KY2, EY2
Car Cleaning	1	%6	ED1
Cooking	3	%17	KD1,KO1,KO3,
Repairing	4	%22	ED2,ED3,EO1, EY1
Shopping	2	%11	KD2, ED3
I don't help	3	%3	KY3,EY2, EY3

When Table 4 is examined, the students expressed their helping role as home cleaning (f = 4; KD3, KO1, KY1, KY2, EY2), car cleaning (f = 1; ED1), cooking (f = 3; KD1, KO1, KO3), repairing (f = 4; ED2, ED3, EO1, EY1), shopping (f = 2; KD2, ED3). When the table is examined, it is seen that only female students stated the jobs attributed to women such as cooking and cleaning. It was determined that only male students stated the jobs attributed to men, such as repairing and car cleaning. The opinions of the participants on this issue are as follows;

.. I am helping my mother. When my mother cleans the house, I clean dust too. I am help collecting the table. I am tidying around. (KD1)

We are cleaning our car with my father. Sometimes I bring repair materials when there is repair work at home. It is my duty to buy bread at home. (ED3)

There is not much work for me to help at home. I usually study. I do my homework. My mom says "Just do your homework, we do not want anything else from you" (EY2)

Discussion, Conclusion and Suggestions

Gender is the role created by the cultural and social values of women and men. In World Economic Forum's education, economic participation, political representation, and health data generated by the 2020 Gender Bias Index Turkey is located on 130th of 153 countries. Children learn by observing family members, teachers, relatives, friends, parents or reinforcing the behavior he/she learned.

In the study, it was determined that students generally prefer friends from both genders. However, in Güder's (2014) study, children generally stated their preferences far from a sexist attitude in their friend preferences. This finding contradicts the current research. Güder's study does not support the research finding because it may be related to the study group. While examining the opinions of preschool children on gender roles in Güder's study, the study group of the present study is primary school third-grade students, and it is thought that they do not support the findings of the study because they are in a different periods of social development.

The study determined that children make choices suitable for their gender in their game preferences. The findings of the study conducted by Güder (2014) support the findings of the current study. Boys come together for activities such as sports or competitions (Berk, 2013). Football is the most preferred game for males and that can be considered as getting together with sports and competitions.

The similarity of socioeconomic level views in the students' answers to the question about what professions specific to men are is a striking result. In Özdemir's (2006) study, which examined the stereotypes of preschool children regarding gender characteristics, children stated that the characteristics of being healthy and challenging were the characteristics of males. In Sanday's (1994) study, it was found that the opinions of the participants were technically and physically inadequate. The current research finding is that children think that professions that require more strength and endurance are specific to men.

The opinions expressed as domestic affairs are similar in that they stem from the traditional family structure when evaluated in terms of socioeconomic level and student genders. In the study of Menekşe (2019), it was concluded that students have a more egalitarian attitude in distributing housework work living in families with different socioeconomic levels and this finding is not in line with the current research findings. In the Güder study on children (2014), it was concluded that children perceive the domestic duties and responsibilities of women and men traditionally, wihich supports the present research findings. It is thought that the students' perception of the same family responsibilities at the high socioeconomic level and low socioeconomic level stems from the fact that the study was carried out in central Anatolia and that the people living in this region live in a traditional family structure. To Berk (2013) tasks such as preparing food, cleaning, and baby care were given to girls, while boys are given responsibilities such as front gardening and going a little further from home. However, non-traditional child-rearing practices lead to a decrease in social gender role behavior and an increase in girls' non-traditional job aspirations. According to the results of Dilek's (1997) study, it has been observed that despite the high level of education and income, most of the mothers and fathers - especially fathers - direct their children to gain gender identity.

The pressure to conform to gender roles reduces children's ability to explore options regarding their interests and abilities. Therefore, children who feel intense gender-stigmatized pressure tend to be troubled and insatiable in their future lives (Berk, 2013). The study's result is

thought to indicate that there is a stereotype about gender in terms of both sex and socioeconomic level. Research findings shows that gender stereotypes of individuals cause inequality in society (Altuntaş and Altınova, 2015; Kahraman, Kahraman, Ozansoy, Smart, Kekillioğlu, and Özcan, 2014). There are findings that there are gender inequalities even during the COVID-19 pandemic process (Web, 2020). Turkey and the other countries should also be said that the eliminate gender inequality. It can be said that this will be minimized through education, even if the situation does not seem to disappear completely.

Based on the findings of the study, there are some suggestions for researchers and practitioners in future implications. In this study, interviews were conducted only with primary school third-grade students and similar studies could be conducted in other classes of primary school students. Besides, interviews with parents can be done, and more detailed information can be accessed. Families may be advised to be role models for their children to develop a positive perception of gender and avoid behaviors that support gender discrimination. Schools play an essential role in acquiring the concept of gender, and it may be suggested that the practices regarding gender discrimination in schools should be determined and measures should be taken in this regard. Teachers can also be provided with in-service training on this subject. To prevent gender discrimination, it may be suggested to organize family training programs and to increase social sensitivity by emphasizing gender equality.

References

Altuntaş, O., & Altınova, H. H. (2015). Determining the relationship between gender perception and socioeconomic variables. *Turkish Studies International Periodical for The Languages, Literature and History of Turkish or Turkic, 10*(6), 83-100.

Basow, S. A. (1992). *Gender: Stereotypes and roles*, Belmont: Thomson Brooks/Cole Publishing

Bayramoğlu, L. (2015*). Examining the perceptions of preschool children regarding gender roles*. (Unpublished Master Thesis). Doğu Akdeniz University, Kıbrıs.

Berk, L. (2013). Çocuk gelişimi. Ankara: İmge.

Bingöl, O. (2014). A case of gender and femininity in Turkey. *KMÜ Sosyal ve Ekonomik Araştırmalar Dergisi,16*(1),108-114.

Bourdieu, P. (2014). *Domination masculine.* İstanbul: Bağlam.

Butler J. (2009). *Gender regulations. Cogito: Feminism.* İstanbul:YKY.

Creswell, J. W. (2019). *Educational research; Planning, conducting and evaluating quantitative and qualitative research.* İstanbul: Edam

Chodorow, N. J. (1978). *The reproduction of mothering: Psychoanalysis and the sociology of gender*. Berkeley: University of California Press.

Chodorow, N. J. (1989). *Feminism and psychoanalytic theory.* New Haven, CT: Yale Unv. Press

Dilek, Y. (1997). *Parents role in preschool childrens gender role socialization* (Unpublished Doctorate Thesis). Middle East Technical University Institute of Social Sciences, Ankara.

Eagly, A.H., Wood, W. & Diekman A. B. (2000). Social rol theory of sex differences and similitaries: a current appraisal, In T. Eckes & H. M. Trautner (Eds.), *The development social psychology of gender*. London: Lawrence Erlbaum.

Eagly, A. H., & Karau, S. J. (2002). Role congruity theory of prejudice toward female leaders. *Psychological Review, 109*(3), 573–598.

Ersoy, A. (2018). Phenomenology. In A. Saban ve A. Ersoy (Eds.). *Qualitative Research Patterns in Education* (pp. 51-110). Ankara : Anı.

Glesne, C. (2020). *Introduction to qualitative research.* Ankara: Anı.

Güder, S. Y. (2014). *Investigating preschool children's perception of gender.* (Unpublished Doctorate Thesis). Hacettepe University Institute of Educational Sciences, Ankara.

Kahraman, L., Kahraman, A. B., Ozansoy, N., Akıllı, H., Kekillioğlu, A., & Özcan, A. (2014). Nevsehir Haci Bektas Veli University gender perception research. *Turkish Studies-*

International Periodical for The Languages, Literature and History of Turkish or Turkic, 9(2), 811-831.

Kellner, F. E. (2007). *Gender and science.* İstanbul: Metis Bilim.

Macionis, J.J. (2012). *Sociology.* Ankara: Nobel.

MacKenzie, D. & Wajcman, J. (1985). *The Social shaping of technology. How the refrigerator got its hum.* Philadelphia: Open University.

Menekşe, F. N. (2019). *Examination of the relationship between toy preferences and gender stereotypes of the children between 3 to 6 years old and societal gender perceptions of their parents.* (Unpublished Master Thesis). Istanbul Ticaret University.

Özdemir, E. (2006). *Examination of stereotypes of preschool children regarding gender characteristics.* (Unpublished Master Thesis). Ankara University Institute of Educational Sciences, Ankara.

Patton, M. Q. (2014). *Qualitative research and evaluation methods.* Ankara:Pegem

Pratto, F. & Walker, A. (2004). The Bases of Gendered Power. In A.H.Eagly, A.E. Beall & R. J. Sternberg (Eds). *The Pyschology Of Gender* (pp.242-269). London: The Guilford Press.

Rendall, J. (1999). Women and the public sphere. *Gender & History, 11*(3), 475–488.

Sanday, P. R. (1994). *Female power and male dominance, on the origins of sexual inequality*. Newyork: Cambridge Press.

Savcı, İ. (1999). Gender and technology. *Ankara Üniversitesi Siyasal Bilgiler Fakültesi Dergisi, 54*(1), 123-142.

Sezal, İ. (2017). *Sociology.* İstanbul: Beta.

Tan, M. (1979). *Woman; economic life and education.*İstanbul: İş Bankası

Tezcan, M. (2017). *Educational sociology.* Ankara: Anı.

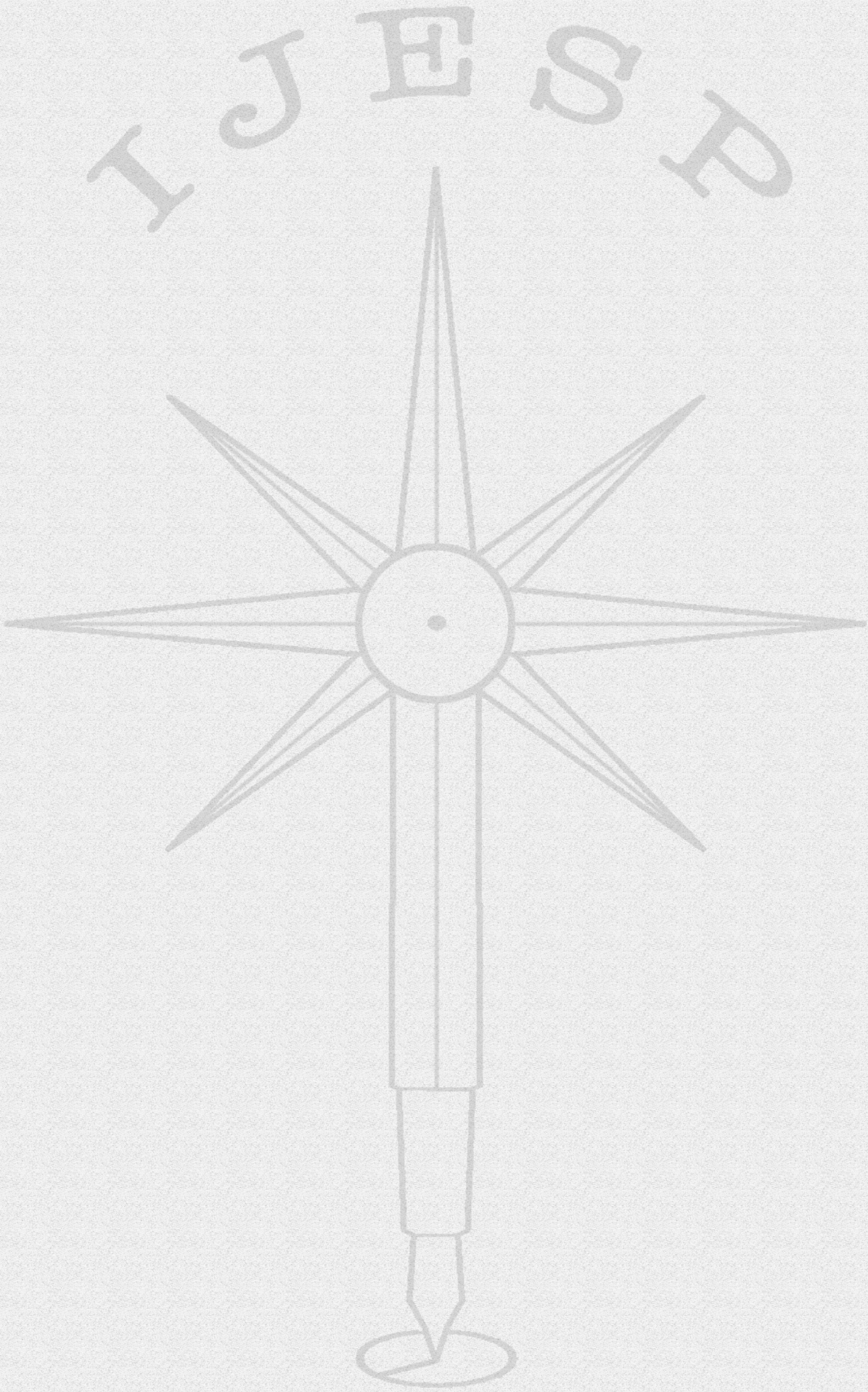
Trommsdorff, C. & Iwawaki, S. (1989). Students' perception of socialization and gender role in Japan and Germany. *International Journal of Behavioral Development, 12*(4), 485-493.

WEF (2020). Global Gender Gap Report 2020. 11.01.2020. http://www3.weforum.org/docs/WEF_GGGR_2020.pdf.

Web (2020). https://www.globalgiving.org/learn/gender-equality-covid-19 11.01.2020.

Wajcman, J. (199l). Patriarchy, technology and conceptions of skill. *Work and Occupations, 18*(1). 29-45.

Yıldırım, A., & Şimsek, H. (2016). *Qualitative research methods in social sciences*. Ankara: Seçkin.



Volume:2 , Issue: 1/ May 2021