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RESEARCH ARTICLE

Scaling of the Students' Homework Preparation Preferences in Distance Education through Pairwise Comparison Method

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Abstract

This study aims to determine the homework preferences preferred by the undergraduate students in distance education using the scaling method of pairwise comparison and to compare the results according to gender, university entrance score, and the level of satisfaction from the department. The research was carried out with 466 students attending the faculty of education. The data were analyzed using Microsoft Office Excel program. According to the results, using lecture notes while preparing homework by citing were the most preferred preferences; presenting someone else's homework as it was one's own and having someone else do the homework techniques were the least preferred preferences. It was determined that students who have entered the university with numerical, equally weighted, and verbal university entrance score types, female students, who were satisfied from departments at different levels benefited mostly by using lecture notes while preparing homework; male students and who entered the university with special talent exam mostly used citing from different sources preference when preparing homework. Furthermore, it was determined that students who have entered the university with equally weighted and verbal university entrance score types, female students, and who were satisfied with their departments highly benefited least by presenting someone else's homework as it was one's own; male students, students who entered the university with numerical and special talent exam, and who were satisfied with their departments low and intermediate level least used having someone else do the homework when preparing homework. Also, it has been determined that there is a strong correlation between the preferences of female and male students, students who enter the university with equally weighted, verbal, numerical score types, and students who are satisfied with the department at different levels.

Keywords: Cheating, distance education, homework, measurement and evaluation, pairwise comparison judgments scaling

Introduction

The new coronavirus disease (COVID-19), which emerged in Wuhan, China, in the last days of 2019, became a pandemic, and then the whole world was affected by this pandemic. This pandemic, whose effects have been seen in all areas from agriculture to economy, from health to transportation, has seriously affected education, which is one of the most important indicators of the development level of societies, and has caused the transition from face-to-face education to distance education in the world and in Turkey. During the pandemic, as in the whole world, the education and training needs of students in Turkey have begun to be met through distance education.

Akdemir (2011) defines distance education as education carried out when students and teachers are physically in separate environments. Telli and Altun (2020) state that distance education, which has an important place in the education system, will turn out to be the main ground of education in the near future, apart from being an alternative teaching method or a support function in face-to-face learning. In this context, it is obvious that distance education, which has a long history, will have an important place in the education system in the future. For this reason, it is expected that relevant institutions and organizations such as universities and ministries will give due importance to the distance education model (İşman, 2011).

As in face-to-face education, measurement and evaluation, which is the last of the basic stages (student learning outcomes, content, educational situations-learning experiences, measurement and evaluation) involved in the planning of the process in distance education, have an important place in the more effective execution of the process. According to Cooper (1989), in the distance education process, in determining the level of students' accomplishment of the course objectives, besides exams, the homework given is of great importance. Ludwig (2021) stated that homework has traditionally been considered a common teaching strategy to improve the effectiveness of daily education. Cooper (1989), defined the concept of homework as any task given to students by teachers to do outside the school hours.

The use of homework in the educational process has many purposes and contributions. According to Gür, through homework, it is aimed to make students think scientifically; reach information sources; establish cause–effect relationships; renew themselves; be a manager and entrepreneur; gain problem-solving skills; raise their social awareness; improve communication skills; and produce intelligence, information,

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and technology. He also states that students' social skills improve when homework is done in a group. The most basic social skills to be acquired while doing homework include: expressing feelings and thoughts, trusting others and confronting with possible risks, being open to new friendships, conveying what you want to say in a way that can be understood to the other party, creating continuous social relations, and seeing having different thoughts as normal (as cited in Yolcu, 2007). Cooper (2007), on the other hand, states that the homework contributes to the understanding and retention of the subject. Besides these positive contributions of homework, it has some negative sides such as thinking that students will not be successful in making use of their extracurricular free time and social activities and the possibility of students' showing negative behaviors such as cheating as a result of quoting the sources exactly as they are while preparing homework (Cooper, 2001). It is stated that giving too much homework causes students to develop negative attitudes toward homework (Hong & Peterson, 2002) and limits the time of students for social–sports activities (Núñez et al., 2015). One of the reasons why homework gives rise to negative effects is said to be teachers' failure to follow homework in a controlled manner (Yolcu, 2007).

During the COVID-19 pandemic, measurement and evaluation activities were mostly carried out by conducting online exams, and in addition, measurement and evaluation activities were tried to be done on the basis of the homework given to students. There are many studies in the literature examining different dimensions of academic dishonesty behavior such as cheating and plagiarism. In addition to such studies, some other studies have focused on the homework preparation process in which academic dishonesty behavior can be displayed. In these studies, elementary and secondary school students' opinions about and perceptions of homework (Aladağ & Doğu, 2009; Çetinkaya & Uzunkol, 2019; Duru & Çöğmen, 2017; Genç, 2019; Güven & Demirçelik, 2013; Kalyoncu, 2020; Kaplan, 2018; Ok, 2018; Şeref & Varışoğlu, 2015), information seeking behaviors (Ekici & Özenç-Uçak, 2012), and student attitudes (Atlı, 2012; Dilek et al., 2021; Özer & Öcal, 2012) have been investigated. There are also some studies investigating teachers' opinions (Çetinkaya, 2019; Ersoy & Anagün, 2009; Genç, 2019; Kalyoncu, 2020; Kaplan, 2018; Ok, 2018; Turan Özpolat et al., 2017; Yel, 2019) and parents' opinions (Genç, 2019; Kaplan, 2018; Kırmızıgül, 2018; Ok, 2018; Yücel, 2008) about homework. Although there are many studies conducted, the studies at higher education level are limited to information seeking behavior (Altay et al., 2012), use of homework sites and the internet (Arıkan & Altun, 2007; Bozyiğit et al., 2012), homework evaluation system in terms of plagiarism (Gücükoğlu, 2016; Uzun et al., 2016), meta-analysis (Üstünel, 2016), attitudes toward homework (Gündüz, 2005; İleri, 2013; Tilgel, 2010), scale development related to homework (Yar Yıldırım, 2021), students' opinions on homework (Acar & Toraman, 2013; Ersoy & Özden, 2011; İflazoğlu Saban & Yavuz Erkan, 2018; Karcı Aktaş et al., 2020; Şahin & İnce, 2019; Ünal et al., 2018; Yalçın, 2019; Yar Yıldırım, 2020), effectiveness of learning through homework (Dikmen & Bahadır, 2021), homework-induced problems (Chang & de Lemos Coutinho, 2021; Cordova et al., 2021), types of online homework (Azmi, 2021; Datko, 2021). Since no study directly examining which homework preparation method students prefer while preparing homework has been encountered in the literature, conducting the current study was thought to be necessary. Since the current study is believed to contribute to the development of student awareness of different ways of doing homework, to the determination of whether students reach information sources while doing homework, whether they learn scientific thinking, and whether their problem-solving skills and communication skills develop, the results of the study will make important contributions to the literature. For this reason, in this study, it is aimed to scale students' homework preferences with the pairwise comparison method in order to determine which homework preparation methods students prefer while preparing homework. To this end, answers to the following questions were sought.

1. What is the way most preferred by students while preparing homework?
2. Do students' homework preparation preferences vary significantly according to gender?
3. Do students' homework preparation preferences vary significantly according to the type of university entrance score?
4. Do students' homework preparations preferences vary significantly according to the level of satisfaction with the department attended?

Method

Research Method

This study is a quantitative study aiming to determine which ways students prefer while preparing homework and scaling them through pairwise comparison, one of the scaling techniques. The study employed the survey model. Survey models are research approaches that aim to describe a past or present situation as it was or is (Karasar, 2012).

Study Group

The study group of the current study is comprised of 466 undergraduate students attending different classes and grad levels of the departments of Computer and Instructional Technologies, Science, Primary Education Mathematics, Music, Preschool, Painting, Primary Education, Social Studies, and Turkish Teaching and Psychological Counselling and Guidance at a state university in the spring term of the 2019–2020 academic year. Frequency and percentage values for the study group are presented in Table 1.

Data Collection Tools

The data in the current study were collected with a personal information form developed by the researchers and a measurement tool to determine students' homework preparation preferences. In the personal information form, there are items to get data about the participating students' gender, department attended, type of university entrance score, and satisfaction level. The measurement tool to determine students' homework preparation preferences is a measurement tool in which ways of preparing homework are presented to students in pairs and students compare and prefer one of them, so that their homework preparation preferences can be determined. The seven ways of preparing

Table 1.
Frequency and Percentage Values for the Variables of the Study Group

Variable	f	%
Grade level		
First grade	111	23.82
Second grade	123	26.39
Third grade	137	29.40
Fourth grade	95	20.39
Gender		
Female	351	75.3
Male	115	24.7
Type of university entrance score		
Numerical	91	19.5
Equally weighted	191	41.0
Verbal	122	26.2
Special talent	62	13.3
Level of satisfaction		
Low	35	7.5
Medium	227	48.7
High	204	43.8

homework included in the tool were determined by reviewing the literature (Altay et al., 2012; Arıkan & Altun, 2007; Bozyiğit et al., 2012; Ekici & Özenç-Uçak, 2012; Ersoy & Özden, 2011; Güven & Demirçelik, 2013; Khamesan & Amiri, 2011; Molnar & Kletke, 2012; Özkan, 2010), by analyzing the homework previously prepared by the students, by drawing on the concepts of plagiarism (presenting some other people's opinions or statements as if they were one's own, using some other people's ideas without citing, performing literary theft, presenting an idea or a product already included in an existing source as if it was new and original) given in Plagiarism.org (2017), and seeking expert opinions. The measurement tool to determine students' homework preferences were subjected to the review of a curriculum and instruction expert who had previously studied academic dishonesty, two measurement and evaluation experts who had worked on scaling, and a Turkish language and literature expert. In light of the feedbacks of the experts, the required corrections were made, and thus, the measurement tool was finalized. The homework preparation preferences included in the tool are given below:

- using lecture notes,
- drawing on different sources without citing,
- preparing by citing,
- cutting-copying-pasting from internet homework sites,
- asking the lecturer,
- having someone do the homework, and
- presenting someone else's homework as it was one's own.
- The percentages of agreement for the suitability of each preference were calculated using the formula suggested by Miles and Huberman (1994). This formula is presented below:

$$\text{Agreement Percentage} = \frac{\text{Number of Agreement}}{\text{Number of Agreement} + \text{Number of Disagreement}} \times 100$$

Moreover, all the experts confirmed the suitability of each preference, and thus the percentage of agreement for each preference was calculated to be 100%.

Data Collection and Ethical Processes

While creating the measurement tool in this study, Google Forms was used. Data were collected not face-to-face due to the ongoing pandemic but via Google Forms after the education activities ended and all the homework (visa, final, and make-up exam) given in the term was submitted by the students. In the current study, all the rules specified in the "Higher Education Institutions Scientific Research and Publication Ethics Directive" were followed. None of the actions specified under the heading "Actions Contrary to Scientific Research and Publication Ethic", which is the second part of the directive, was performed. The students who voluntarily participated in the study were informed about the purpose and duration of the study. They were allowed to read the informed consent form, and their written consent was obtained. It was stated in the informed consent form that the answers given to the measurement tool would be kept confidential, that they would not be shared with third parties, and that they would be used only for scientific purposes. In addition, the respondents were assured that their identities would not be revealed.

Data Analysis

Scaling refers to statistical operations performed to ascribe certain mathematical qualities to the measurements obtained as a result of the measurement. Scaling is to increase the quality of the data collected with simple measurement tools and to standardize it. Scaling is not limited to the process of scale development. Scaling also focuses on correlating the perceived size of the feature being measured with its actual size (Crocker & Algina, 1986; Dunn-Runkin, 1982). In scaling, there is the determination of scale values. The biggest benefit of scaling is the improvement of attributes (Stevens, 1966; Turgut & Baykul, 1992). Scaling methods are divided into two groups as judgment approach and response approach. Judgment approach is stimulus-centered and based on observer judgment, whereas response approach is respondent (subject)-centered and based on subject responses (Torgerson, 1958; Turgut & Baykul, 1992). While determining the homework preferences of university students, the method of scaling with pairwise comparisons was used. The method of scaling with pairwise comparisons was used in the scaling of attitude sentences at first. This method can be used in situations where stimuli can be given to the respondents in pairs. Therefore, the application area of the method is quite wide (Anıl & Güler, 2006; Turgut & Baykul, 1992).

In the scaling based on pairwise comparisons, each student participating in the study was presented with seven ways of preparing homework in pairs and they were asked to choose from among these ways by making pairwise comparisons. The data were analyzed using the Microsoft Office Excel program. While analyzing the research data, frequency matrices were created by determining the frequency values of the answers given by the students. The ratio matrix (P) was determined by dividing the value in each cell of the frequency matrix by the total number of students (N). The unit normal deviations matrix (Z') was obtained by calculating the standardized Z values corresponding to each value in the ratio matrix. Spearman Brown rank differences correlation coefficient was calculated in order to determine the relationship between the rankings of homework preparation preferences of the students in each sub-group according to the variables of level of satisfaction with the department, gender and type of university entrance exam. Spearman Brown rank differences correlation coefficient (Spearman rho, rs) can be used in situations where it is difficult to measure variables quantitatively, and judgments about an object or individual are directly represented by rank values (Büyüköztürk et al., 2008).

Results

In this study, it was determined which way university students preferred more while preparing homework and their preferences were examined separately according to their gender, type of university entrance score, and level of satisfaction with the department attended. Whether the students' homework preparation preferences vary significantly depending on gender, type of university entrance score and level of satisfaction with the department attended is presented below.

When the scale values and rankings of the seven different homework preparation methods given in Table 2 are examined, it is seen that university students mostly prefer to use lecture notes while preparing homework, followed by preparing by citing different sources, asking the lecturer, drawing on different sources without citing, cutting–copying–pasting from internet homework sites, having someone else do the homework, and presenting someone else's homework as if it was one's own. When the scale values are examined, it is seen that the scale scores obtained for the most preferred methods of using lecture notes and preparing by citing different sources and the scale scores obtained for the least preferred methods of presenting someone else's homework as if it was one's own and having someone else do the homework are very close to each other. These findings show that the university students cannot differentiate much between the most and least preferred ways of preparing homework. It is also seen that the scale scores obtained for the methods of asking the lecturer, drawing on different sources without citing and preparing homework by cutting–copying–pasting from the internet homework sites are close to each other and that the difference between the scores obtained for these three homework preparation methods and the scores obtained for the other methods is relatively higher. These findings show that the two

Table 2.
University Students' Homework Preparation Preferences

	Scale Value	Rank
M1 Preparing by citing	0.065	2
M2 Asking the lecturer	0.684	3
M3 Presenting someone else's homework as it was one's own	1.961	7
M4 Using lecture notes	0.000	1
M5 Drawing on different sources without citing	0.817	4
M6 Cutting–copying–pasting from internet homework sites	0.966	5
M7 Having someone else do the homework	1.946	6

most preferred ways of preparing homework are much more preferred than the other ways and that the two least preferred ways of preparing homework are much less preferred than the other ways of preparing homework.

Table 3 shows the ranking of the female and male students with their scale values regarding their homework preparation preferences.

When Table 3 is examined, it is seen that although the least preferred way of preparing homework by the male and female students and the most preferred way of preparing homework by the male and female students are different from each other, the rankings of the homework preparation methods they prefer are similar to each other. The female students were determined to prefer preparing homework by using lecture notes the most, followed by preparing by citing different sources and asking the lecturer. On the other hand, the male students were determined to prefer preparing by citing different sources the most, followed by using lecture notes and asking the lecturer. When the scale values are examined, it is seen that that the scale scores obtained for the most preferred methods of preparing by citing different sources and using lecture notes are close to each other. These findings show that although there are differences in the ranking, the ways that the female and male students most prefer while preparing homework are compatible with each other.

The female students were determined to least prefer the method of presenting someone else's homework as if it was one's own, followed by having someone else do the homework, and cutting–copying–pasting from internet homework sites while doing their homework. The male students, on the other hand, were determined to least prefer the method of having someone else do the homework, followed by presenting someone else's homework as if it was one's own and cutting–copying–pasting from internet homework sites. When the scale values are examined, it is seen that the scale scores obtained for the least preferred method of presenting someone else's homework as if it was one's own and having someone else do the homework are close to each other.

Table 3.
Female and Male Students' Homework Preparation Preferences

	Scale Value		Ranking	
	Female	Male	Female	Male
M1 Preparing by citing	0.299	0.000	2	1
M2 Asking the lecturer	0.670	0.646	3	3
M3 Presenting someone else's homework as it was one's own	2.025	2.035	7	6
M4 Using lecture notes	0.000	0.268	1	2
M5 Drawing on different sources without citing	0.777	0.866	4	4
M6 Cutting–copying–pasting from internet homework sites	0.940	0.975	5	5
M7 Having someone else do the homework	1.884	2.197	6	7

These findings also show that although there are differences in the ranking, the ways of preparing homework that the female and male students least prefer while preparing homework are also compatible with each other. In addition, the scale scores obtained for the methods of asking the lecturer, drawing on different sources without citing, and cutting–copying–pasting from internet homework sites are close to each other; the difference between the scale scores obtained for these three methods and those obtained for the other methods is bigger; and the ranking of these three homework preparation methods is same for both the female and male students.

The compatibility between the preferences of the female and male students was examined with the Spearman rank differences correlation coefficient. The obtained results are given in Table 4.

When Table 4 is examined, it is seen that there is a positive, high level, and significant relationship between the ranking of the female and male students' homework preparation preferences (r_s=0.929, $p < .01$). These findings show that there is a strong correlation between the homework preparation preferences of the male and female students and that gender is not a variable having a significant influence on the students' homework preparation preferences.

Table 5 shows the ranking of the students entering the university on the basis of different score types according to the scale values of their homework preparation preferences.

When Table 5 is examined, it is seen that the students who entered the university with a numerical score mostly prefer the method of using lecture notes while preparing their homework, followed by drawing on different sources without citing, preparing by citing different sources, cutting–copying–pasting from internet homework sites, using someone else's homework as if it was one's own, and asking the lecturer and having someone else do the homework. The students who entered the university with an equally weighted score are seen to most prefer the method of using lecture notes while preparing their homework, followed by preparing by citing different sources, drawing on different sources without citing, cutting-copying-pasting from internet homework sites, asking the lecturer, having someone else do the homework, and presenting someone else's homework as if it was one's own. The students who entered the university with a verbal score are seen to most prefer the method of using lecture notes while preparing their homework, followed by preparing by citing different sources, asking the lecturer, drawing on different sources without citing, cutting–copying–pasting from internet homework sites, having someone else do the homework, and presenting someone else's homework as if it was one's own. The students who entered the university with a special talent score are seen to most prefer the method of preparing by citing different sources, followed by using lecture notes, asking the lecturer, presenting someone else's homework as it was one's own, cutting–copying–pasting from the internet homework sites, drawing on different sources without citing and having someone else doing the homework.

When the scale values are examined, it is seen that the scale scores of the students who entered the university with a numerical score regarding the homework preparation preferences are closer to each other than the scale scores of the students who entered the university with the other

Table 4.
Spearman Rank Differences Correlation Coefficients Between the Preferences of the Female and Male Students

	Gender	Female	Male
Spearman's rho	Female	1.000	0.929**
	Male		1.000

**$p < .01$.

Table 5.
Homework Preparation Preferences of the Students Entering the University on the basis of Different Score Types

	Scale Value				Ranking			
	Numerical	**Equally Weighted**	**Verbal**	**Special Talent**	**Numerical**	**Equally Weighted**	**Verbal**	**Special Talent**
M1 Preparing by citing	0.404	0.323	0.285	0.000	3	2	2	1
M2 Asking the lecturer	0.855	0.779	0.718	0.247	6	5	3	3
M3 Presenting someone else's homework as it was one's own	0.713	1.392	1.971	0.683	5	7	7	4
M4 Using lecture notes	0.000	0.000	0.000	0.107	1	1	1	2
M5 Drawing on different sources without citing	0.335	0.688	0.834	1.314	2	3	4	6
M6 Cutting–copying–pasting from internet homework sites	0.488	0.772	0.910	0.889	4	4	5	5
M7 Having someone else do the homework	0.910	1.307	1.915	1.699	7	6	6	7

Table 6.
Spearman Rank Differences Correlation Coefficients Between the Preferences of the Students Entering the University with Different Score Types

	Score Type	**Numerical**	**Equally Weighted**	**Verbal**	**Special Talent**
Spearman's rho	Numerical	1.000	0.857*	0.643	0.429
	Equally weighted		1.000	0.893**	0.536
	Verbal			1.000	0.714
	Special Talent				1.000

*$p < .05$; **$p < .01$.

score types. This finding shows that the difference between the homework preparation preferences of the students who entered the university with a numerical score is less than the students who entered the university with the other score types. Moreover, it is seen that the scale scores obtained for the two homework preparation methods least preferred by the students who entered the university with an equally weighted score, a verbal score, and a special talent score are quite different from the scale scores obtained for the other homework preparation methods. These findings show that the students entering the university with an equally weighted score, a verbal score, and a special talent score prefer these homework preparation methods less than the other methods.

When Table 6 is examined, it is seen that there is a positive, high, and significant correlation between the homework preparation preferences rankings of the students who entered the university with an equally weighted score and those of the students who entered the university with a numerical score (rs = 0.857, $p < .05$) and a verbal (rs = 0.893, $p < .01$). In light of these findings, it can be said that in terms of homework preparation preferences, the highest compatibility is between the students who entered the university with an equally weighted score and a numerical score and the students who entered the university with an equally weighted and verbal score.

It is seen that there is no statistically significant relationship between the homework preparation preferences ranking of the students who entered the university with a special talent score and the homework preparation preference ranking of the students who entered the university with the other types of scores ($p < .05$). In light of these findings, it can be said that the homework preparation preferences of the students who entered the university with a special talent score differ from those of the students who entered the university with the other types of scores. Therefore, based on all these findings, it can be concluded that the type of university entrance score is a determining factor in students' homework preferences.

The ranking of the students with a low, medium, and high level of satisfaction with their department they attend on the basis of their scale scores obtained for their homework preparation preferences is given in Table 7.

When Table 7 is examined, it is seen that the three most preferred ways of preparing homework and their ranking are the same for the students who are satisfied with their department at different levels. It was determined that the students who are satisfied with the department they are attending at low, medium, and high levels most prefer the method of using lecture notes while preparing their homework, followed by preparing by citing different sources and asking the lecturer. While the method of preparing homework least preferred by the students with low and medium levels of satisfaction with the department attended is having someone else do the homework, the least preferred method by the students with a high level of satisfaction is presenting someone else's homework as if it was one's own. While the students with a low level of satisfaction with their department were found to least prefer the method of having someone else do the homework, followed by presenting someone else's homework as if one's own, drawing on different sources without citing and cutting–copying–pasting from internet homework sites, the students with a medium level of satisfaction with their department were found to least prefer the method of presenting someone else's homework as if it was one's own, followed by

Table 7.
Students' Homework Preparation Preferences according to their Level of Satisfaction with the Department They Attend

	Scale Value			Ranking		
	Low	**Medium**	**High**	**Low**	**Medium**	**High**
M1 Preparing by citing	0.402	0.367	0.147	2	2	2
M2 Asking the lecturer	0.964	0.796	0.528	3	3	3
M3 Presenting someone else's homework as it was one's own	2.593	1.676	1.983	6	6	7
M4 Using lecture notes	0.000	0.000	0.000	1	1	1
M5 Drawing on different sources without citing	1.558	0.847	0.738	5	4	4
M6 Cutting-copying-pasting from internet homework sites	1.411	1.016	0.895	4	5	5
M7 Having someone else do the homework	2.647	2.000	1.874	7	7	6

Table 8.
Spearman Rank Differences Correlation Coefficients Between the Preferences of the Students Satisfied with Their Department at the Three Levels

	Level of Satisfaction	Low	Medium	High
Spearman's rho	Low	1.000	0.964**	0.929**
	Medium		1.000	0.964**
	High			1.000

**$p < .01$.

cutting–copying–pasting from internet homework sites and preparing without citing different sources. The students with a high level of satisfaction with their department were found to least prefer the method of presenting someone else's homework as if it was one's own, followed by having someone else do the homework, cutting–copying–pasting from internet homework sites, and preparing without citing different sources.

When the scale values are examined, it is seen that the scale scores obtained for the methods of drawing on different sources without citing and cutting–copying–pasting from internet homework sites while preparing homework are very close to each other at all the three satisfaction levels. Based on this finding, it can be said that these two ways of preparing homework cannot be differentiated from each other at all the three levels. It is seen that the scale scores obtained for the methods of presenting someone else's homework as if it was one's own and having someone else do the homework by the students with low and high levels of satisfaction with the department they attend are very close to each other. Based on this finding, it can be concluded that these two ways of preparing homework cannot be distinguished from each other very much for the students with low and high satisfaction levels.

When Table 8 is examined, it is seen that there are positive, high, and significant correlations between the rankings of homework preparation preferences of the students who are satisfied with their department at low, medium, and high levels ($p < .01$). These findings show that there is a strong correlation between the homework preparation preferences of the students with different satisfaction levels and that the level of satisfaction with the department is not a variable determinant in their homework preparation preferences.

Discussion, Conclusions, and Recommendations

As a result of the current study, it was determined that the university students most preferred the methods of using lecture notes and preparing by citing different sources while preparing their homework and that the scale scores obtained for these two methods of preparing homework were very close to each other. It was determined that they preferred to use someone else's homework as if it was one's own and to have someone else do the homework the least and the scale scores obtained for these preferences were also found to be very close to each other. These findings of the current study are similar to the finding that the copying of an assignment from the internet is not approved (Ludlum et al., 2021) and the finding that presenting a study done by someone else as if it was one's own should be considered a serious cheating (Güven & Demirçelik, 2013; Özdemir-Özden, 2015). The finding of the current study that the students most preferred the method of using lecture notes while preparing their homework is different from the finding that the methods least preferred by the students are presenting someone else' homework as if it was one's own (Parks-Leduc et al., 2021) and having someone else do the homework (Ersoy & Özden, 2011; Khamesan & Amiri, 2011; Yazdanparast & Saeidi, 2021) and the finding that university students make use of the internet while doing homework (Altay et al., 2012; Arıkan & Altun, 2007; Bayrak, 2013; Bozyiğit et al., 2012; Ekici & Özenç-Uçak, 2012; Özkan, 2010; Şahin & İnce, 2019). The reason why the students preferred to prepare homework by using lecture notes and to prepare by citing the most might be because the homework given to the students requires them to conduct research.

The female students were determined to prefer most the methods of using lecture notes and preparing by citing different sources and to prefer least the methods of presenting someone else's homework as if it was one's own and having someone else do the homework. This can be interpreted that the female students pay more attention to ethical rules and have a greater sense of responsibility. The male students were determined to prefer most the methods of preparing by citing different sources and using lecture notes and to prefer least the methods of having someone else do the homework and presenting someone else's homework as if it was one's own. In addition, it was determined that the female students preferred internet sites more than the male students. This finding is similar to the finding that 9% of the female participants and 4.7% of the male participants use the internet for their homework (Vatandaş, 2017). The Spearman rank differences correlation coefficient between the preference rankings of the female and male students was found to be positive, high, and significant, and it was determined that there was a strong harmony between the female and male students' homework preparation preferences.

The students who entered the university with a numerical score were found to most prefer the methods of using lecture notes and drawing on different sources without citing while preparing their homework; the students who entered the university with an equally weighted and a verbal score were found to most prefer the methods of using lecture notes and preparing by citing different sources, and the students who entered the university with a special talent score were found to most prefer the methods of preparing by citing different sources and using lecture notes. The students who entered the university with a numerical score were found to least prefer the methods of asking the lecturer and presenting someone else's homework as if it was one's own while preparing their homework; the students who entered the university with an equally weighted score were found to least prefer the methods of presenting someone else's homework as if it was one's own and having someone else do the homework, and the students who entered the university with a special talent score were found to least prefer the methods of having someone else do the homework and drawing on different sources without citing. When the Spearman rank differences correlation coefficients between the preference rankings of the students who entered the university with different types of scores were examined, it was determined that there was a strong correlation only between the students entering the university with an equally weighted score, the students entering the university with a verbal score and the students entering the university with a science–Turkish language score while no correlation was found between the students entering the university with a special talent score and the students entering the university with other types of scores. This may be due to the fact that the content of the homework given to special talent students differs from the others.

It was determined that the students who were satisfied with their department at low, medium, and high levels most preferred to use the lecture notes and cite different sources while preparing their homework. The students with a low and medium level of satisfaction with their department were found to least prefer the methods of having someone else do the homework and presenting someone else's homework as if it was one's own while the students with a high level of satisfaction with their department were found to least prefer the methods of presenting someone else's homework as if it was one's own and having someone else do the homework. The compliance between the preference rankings of the students with different levels of satisfaction was found to be high.

Since students mostly benefit from lecture notes while preparing their homework, practitioners can direct students to prepare homework by using different sources other than lecture notes, and they can inform students about how to have access these resources, how to access information from sources, how to combine this information and use it more effectively. In addition, since students use someone else's homework as their own and prepare homework without citing references or by cutting-copy-pasting from websites, in the first week of the course, students can be informed on the rules to be followed when preparing homework, how to prepare homework, in which cases their homework will not be accepted, the fact that plagiarism programs will be used in the control of homework, and what the sanctions to be applied in cases where the rules are not followed. Thus, it can be contributed to the development of students' skills such as doing research, scientific thinking, and communication. Researchers, on the other hand, can conduct similar studies and make comparisons with students from different faculties or institutes where these and similar homework preparation methods are used.

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