



**ANALYSING THE TIME MANAGEMENT
THOUGHTS OF PRE-SERVICE TEACHERS PREPARING
FOR KPSS IN TERMS OF DIFFERENT VARIABLESⁱ**

Fatma Nur Ürekli¹,

Nihat Karaer²,

Mevlüt Gündüz³ⁱⁱ

¹Ministry of National Education,
Turkey

orcid.org/0000-0003-4683-9728

²Burdur Mehmet Akif Ersoy University,
Turkey

orcid.org/0000-0002-1946-9162

³Suleyman Demirel University,
Turkey

orcid.org/0000-0001-5823-190X

Abstract:

The aim of this study is to reveal the level of time management thoughts of pre-service teachers preparing for KPSS. For this purpose, the thoughts of the pre-service teachers about time management were analysed in terms of different variables. In the study, survey method from quantitative research was used to determine the situation. In 2019, pre-service teachers in Isparta and Burdur constituted the study group of the research. Voluntary 408 pre-service teachers participated and expressed their opinions. In the scales applied, 60 scales were not included in the evaluation due to the fact that not all of the sections in the personal information section were not filled in, there were items that were not marked in the second section, and there were double markings in the items. As a result, the study group consisted of 348 pre-service teachers. In this study, Personal Information Form and Time Management Scale were used as data collection tools. In the form, questions about the pre-service teachers' gender, age, department, employment status, marital status, and the duration of preparation for the exam were included. The Time Management Scale used in the study was taken from İşcan's (2008) study and adapted to pre-service teachers preparing for KPSS. İşcan translated and adapted the scale developed by Britton and Tesser (1991) into Turkish. In the analysis of the data, frequency and percentage values were found from descriptive statistics. Since the data were normally distributed, Independent Sample t-test was used to analyse the variables

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ⁱⁱ Correspondence: email mevlutgunduz@sdu.edu.tr

consisting of two categories from parametric tests, and One-Way Analysis of Variance was used when there were more than two groups. The significance level was taken as .05. The following results were obtained in the research: pre-service teachers' thoughts about time management were found to be at "medium" level. While there was a significant difference in the pre-service teachers' thoughts about time management according to gender, marital status, duration of preparation for the exam; there was no significant difference according to age, the department they studied, and employment status.

Keywords: time management, pre-service teachers, KPSS

1. Introduction

Under the intense tempo of global information and today's technological age, the most common complaint of people is lack of time. People are now chasing time both in their personal and business lives. However, very few people try to use time well (Özdemir, 2006, p.1). Time is a phenomenon that is experienced every day, every moment, but is not thought about much, and even what it is, is not known exactly (Özdemir, 2006, p.49). In the dictionary, it is defined as "*time is an uninterrupted process in which events follow each other from the past to the present and into the future*" (Smith, 2000, p.24).

Although time is considered as the least understood and worst spent resource among the resources (Scout, 1995, p.9), it is actually a treasure that cannot be replaced (Jones, 2000, p.8). Time is a wealth, a gift bestowed to individuals. It is necessary to know its value (Sabuncuoğlu & Paşa, 2002, p.6). Because the time used does not come back again (Jones, 2000, p.8). Being able to use time well is actually a very important life skill (Jones, 2000, p.8). Using it effectively means improving the quality of life (Sabuncuoğlu & Paşa, 2002, p.5).

Since the hour and minute hands cannot be stopped, people should stop managing the clock and try to find ways to manage themselves. The name of this endeavour is naturally "time management" (Sabuncuoğlu & Paşa, 2002, p.6). "Time management" means the effective use of time. Since the progression of time takes place outside of people, what needs to be done is for people to manage themselves effectively in time (Silahtaroglu, 2004, p.4).

In this context, time management is mostly encountered in exams in people's lives. As it is very important and indispensable for every individual, it would not be wrong to say that time is a blessing for teacher pre-service teachers preparing for KPSS. The most important thing for pre-service teachers who have successfully completed different departments of the Faculties of Education of universities is undoubtedly the transition to professional life. In order to be appointed, teacher pre-service teachers, like other pre-service teachers who want to become public personnel, must take the Public Personnel Selection Examination (KPSS) and score enough points to ensure their appointment. KPSS has become a vital exam for many people directly or indirectly (Odabaş, 2010, p.3).

Since KPSS is very important for pre-service teachers who are currently studying or have graduated from the Faculties of Education of universities, they need to use the concept of time well and manage time well. It is thought that pre-service teachers who can manage time in the best way can always be ahead in terms of success, productivity, happiness, self-confidence, and many other aspects both in their daily lives and in their professional lives.

The aim of this study is to reveal the level of time management thoughts of pre-service teachers preparing for KPSS. In addition, the thoughts of the pre-service teachers about time management will be analysed in terms of different variables. By making these determinations, it is thought that whether the pre-service teachers use time effectively or not will contribute to the better use of time by the pre-service teachers in the following process.

When the literature was examined, it was seen that there was no research on examining the thoughts of pre-service teachers preparing for KPSS about time management in terms of different variables. It is thought that the research is important in this respect and will contribute to the literature. It is thought that this study will guide the pre-service teachers who have difficulties in time management and who want to improve and change themselves in this regard; it is thought that the pre-service teachers who have difficulties in time management will realise how important and valuable time is, spend it in a valuable way and not be easily caught in time traps.

2. Literature Review

When the studies on time management were examined, it was seen that they were conducted with teachers (Gözel, 2009; Yenilmez, 2010; İlerleyen, 2014; Caz, 2014; Şahin, 2014; Ataş, 2017; Yavuz, 2018; Türkan, 2018; Güler 2018; Sungur, 2018), and students (Erdul, 2005; İşcan, 2008; Andıç, 2009; Gümüştül, 2013; Türe, 2013; Hacıbalayeva, 2017). In addition, there are studies conducted with administrators (Karaođlan, 2006; Süsin, 2012; Şahin, 2014; Uyduran, 2014; Küçük, 2014; Çınar, 2018) and teacher pre-service teachers (Cesur, 2018). However, no study was found on the Investigation of Time Management Thoughts of Pre-service teachers Preparing for KPSS in Terms of Different Variables. With this study, this deficiency in the literature was tried to be compensated.

3. Material and Methods

3.1. Research Model

In the research, the survey method was used from quantitative research to determine the situation. The survey method is a research method that aims to determine a past or current situation as it exists (Karasar, 2016, p.109). The general survey model is conducted on the whole universe or a group, sample or sample taken from it in order to reach a general judgement about the universe in a universe consisting of a large number of elements (Karasar, 2016, p.111).

3.2. Study Group

The study group of the research consisted of pre-service teachers studying in Isparta and Burdur in the 2019-2020 academic year. A total of 408 pre-service teachers voluntarily participated in the study and expressed their opinions. In the scales applied, 60 scales were not included in the evaluation due to the fact that not all of the sections in the personal information section were not filled in, there were items that were not marked in the second section, and there were double markings in the items. As a result, the study group consisted of 348 pre-service teachers. Table 1 shows the distribution of the pre-service teachers participating in the study according to gender.

Table 1: Distribution of Pre-service Teachers Preparing for KPSS According to Gender

Gender	N	%
Female	254	73,0
Male	94	27,0
Total	348	100,0

When Table 1 is analysed, 254 (73.0%) of the pre-service teachers who participated in the study were female and 94 (27.0%) were male. It is seen that female pre-service teachers participated in the research are more than male pre-service teachers. Table 2 shows the distribution of the pre-service teachers according to age.

Table 2: Distribution of Pre-service Teachers Preparing for KPSS According to Age

Age	N	%
Between 18-22	227	65,2
More than 23	121	34,8
Total	348	100,0

The ages of the pre-service teachers were categorised as "18-22 years old" and "23 and over" in order to make better comparisons and interpretations in the result of the analysis. Table 2 shows that 227 (65.2%) of the pre-service teachers who participated in the study were in the 18-22 age group and 121 (34.8%) were in the 23 and over age group. It is seen that there are more pre-service teachers between the ages of 18-22. Table 3 shows the distribution of the pre-service teachers according to the department they studied.

Table 3: Distribution of Pre-service Teachers Preparing for KPSS According to the Programme of Study

Programme	N	%
Form	42	12,1
Turkish	41	11,8
English	33	9,5
Science	49	14,1
Mathematics	21	6,0
Pre-school	39	11,2
Social Studies	27	7,8
Other	96	27,6
Total	348	100,0

In the study, it was aimed to investigate whether there is a difference in the thoughts of the pre-service teachers who are currently studying or have studied in the programmes of Form, Turkish, English, Science, Mathematics, Preschool and Social Studies teaching departments about time management. The programmes other than these were grouped under the Other option and included in the analyses. When Table 3 is analysed, of the pre-service teachers who participated in the study, 42 (12,1%) were in Form, 41 (11,8%) were in Turkish, 33 (9,5%) were in English, 49 (14,1%) were in Science, 21 (6,0%) were in Mathematics, 39 (11,2%) were in Preschool, 27 (7,8%) were in Social Studies, and 96 (27,6%) were in Other. It is seen that there are more pre-service teachers in the "Other" option. The programmes of the pre-service teachers in the Other option are Geography, History, Construction, Arabic, Turkish Language and Literature, Music, Arts, Religious Culture and Moral Knowledge, Physical Education and Sports. After the other option, it is seen that Science Teacher Education is more. Table 4 shows the distribution of the pre-service teachers according to their employment status.

Table 4: Distribution of Pre-service Teachers
Preparing for KPSS According to the Employment Status

Employment Status	N	%
I am employed	42	12,1
I am non-employed	306	87,9
Total	348	100,0

When Table 4 is analysed, it is seen that 42 (12,1%) of the pre-service teachers who participated in the research answered, "I am employed" and 306 (87,9%) answered "I am non-employed". It is seen that the pre-service teachers who answered, "I am non-employed" are more than the pre-service teachers who answered, "I am employed". Table 5 shows the distribution of the pre-service teachers according to their marital status.

Table 5: Distribution of Pre-service Teachers
Preparing for KPSS According to the Marital Status

Marital Status	N	%
I am married	17	4,9
I am single	331	95,1
Total	348	100,0

When Table 5 is analysed, it is seen that 17 (4,9%) of the pre-service teachers who participated in the study were married and 331 (95,1%) of them were single. It was observed that the number of pre-service teachers who marked "single" was higher than the number of pre-service teachers who marked "married". Table 6 shows the distribution of the pre-service teachers according to the preparation time for the exam.

Table 6: Distribution of Pre-service Teachers
Preparing for KPSS According to the Preparation Time

Preparation Time	N	%
Less than 1 year	242	69,5
1 year	44	12,6
2 years	45	13,9
3 years	12	3,4
4 years and more	5	1,4
Total	348	100,0

When Table 6 is analysed, it is determined that 242 (69,5%) of the pre-service teachers who participated in the study were prepared for the exam for less than 1 year, 44 (12,6%) for 1 year, 45 (13,9%) for 2 years, 12 (3,4%) for 3 years, 5 (1,4%) for 4 years or more. It was determined that the number of pre-service teachers who marked less than 1 year was higher. It was seen that the pre-service teachers who marked the answer of 2 years were in the second place.

3.3. Data Collection Tools

In this study, Personal Information Form and Time Management Scale were used as data collection tools. The Time Management Scale used in the study was taken from İşcan's (2008) study and adapted to pre-service teachers preparing for KPSS. İşcan translated and adapted the scale developed by Britton and Tesser (1991) into Turkish. While there were 37 items in the original version of the scale, some of the items were discarded after the validity and reliability were examined as a result of the application to a pre-test group of 150 people. After some of the items were discarded, the number of items in the scale was 25.

For the 25 items in the measurement tool, "always", "often", "sometimes" and "never" options were given and the pre-service teachers who participated in the research were asked to tick the option that expressed themselves. Based on the following formula $n-1/n$, the ranges of the degree of agreement were found. It was calculated that the interval width between "1" and "4" was ",75". The minimum score that can be obtained from the scale is 25 and the maximum score is 100. Table 7 shows the level ranges and degree of agreement of the items in the scale.

Table 7: Level Ranges and Degree of Agreement of the Items in the Scale

Range Level	Degree of Agreement
3,25-4,00	Always
2,50-3,24	Often
1,75-2,49	Sometimes
1,00-1,74	Never

When Table 7 is analysed, it is seen that the level ranges and degrees of agreement of the items in the scale are "Always 3,25-4,00; Often 2,50-3,24; Sometimes 1,75-2,49; Never 1,00-1,74". The negative items in the scale are 13, 15, 17, 19, 20, 21, 22, 23 and 24. After the

obtained data were transferred to the computer, these negative items were reverse coded with the SPSS software and included in the analyses in this way. The time management scale consists of three sub-dimensions: time planning, time management attitudes and skills, and time adversaries. Considering the distribution of 25 items in the scale, items 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 and 12 are time planning; items 13, 14, 15, 16, 17, 18, 19 and 20 are time management attitudes and skills; and items 21, 22, 23, 24 and 25 are time adversaries.

3.4. Validity and Reliability of the Scale

The validity and reliability studies of the scale used in the research were conducted by Seher İřcan (2008). In order to measure the content validity of the scale, the expert group was consulted. Adjustments were made as a result of the evaluation made by the expert group. It was determined that the measurement tool had content validity and the pilot application phase was started.

In the research conducted by İřcan (2008) on the construct validity of the scale, the partial correlations between the items and the suitability of the correlation matrix for factor analysis were tested by means of Kaiser-Meyer-Olkin (KMO) coefficient and Bartlett's test before proceeding to factor analysis. KMO value is expected to be higher than .60 for factorisability. Bartlett's test examines whether there is a relationship between variables on the basis of partial correlations. A significant chi-square indicates that the data matrix is suitable for factor analysis (Büyüköztürk, 2016, p.136). The Kaiser-Meyer-Olkin value for the scale was found to be .835 in the analysis performed with the data obtained with the pretest. It was determined that the data in the scale were suitable for factor analysis. Factor analysis was performed with 37 items to determine the basic dimensions and factor structure of the scale. In the analysis, the scale was tested through Principal Component Analysis and the factor loading values of the items in the scale were examined.

As a result of the calculation made by considering the sample size of the pretest group, 12 items with factor loading values below .258 ($.129 \times 2$) were removed from the scale. The three dimensions that emerged after the factor analysis were named as "time planning", "time management attitudes and skills" and "time enemies", considering the literature review conducted by Seher İřcan.

A reliability value of .70 and above is generally considered sufficient in terms of the reliability of the test scores (Büyüköztürk, 2016, p.183). The Cronbach-alpha value of the tool was found to be .750 and it was determined that the data collection tool was reliable.

In the study titled "Investigation of Time Management Thoughts of Pre-service teachers Preparing for KPSS in Terms of Different Variables", two experts and three pre-service teachers were consulted to measure face and content validity. As a result of the evaluations of the expert group and the pre-service teachers, arrangements were made, and the face and content validity of the tool was tried to be taken under control.

Cronbach-alpha value was found as ,802. The reliability of the data collection tool was high.

3.5. Analysing the Data

The data obtained from the research were transferred to the SPSS 22 package software on the computer. Frequency and percentage values were found from descriptive statistics. With the normal distribution of the data, Independent Sample t test was used in the analysis of variables consisting of two categories from parametric tests, and One-Way Analysis of Variance was used in cases with more than two groups. The significance level was taken as .05.

4. Findings

Firstly, the mean, median, variance, standard deviation, minimum value, maximum value, distribution range, interquartile range, skewness, and kurtosis values of the data belonging to the pre-service teachers' thoughts about time management were examined. The results are given in Table 8.

Table 8: Descriptive Statistics Results Related to
Pre-service Teachers' Thoughts on Time Management

		Statistics	Standard Error
Time Management	Mean	2,7036	,01948
	Median	2,7200	
	Variance	,132	
	Standard Dev.	,36336	
	Min. Value	1,56	
	Max. Value	3,76	
	Distribution Rng.	2,20	
	Interquartile Rng.	,44	
	Skewness	-,212	,131
	Kurtosis	,381	,261

When Table 8 is analysed, mean (2,70), median (2,72), variance (,13), standard deviation (,36), minimum value (1,56), maximum value (3,76), distribution range (2,20), interquartile range (,44), skewness (-,21) and kurtosis (,38) were obtained. Skewness and kurtosis values were analysed descriptively to see whether the data showed normal distribution. When the skewness and kurtosis values of the data are examined, it is seen that they take values between +1 and -1. When the skewness and kurtosis coefficients take values between +1 and -1, it can be stated that the findings show normal distribution or close to normal distribution. It can be said that it would be more appropriate to use a flexible approach, especially in Likert-type scales (Gürbüz & Şahin, 2018, p.214). Since the values in this study are within the critical limits, it can be accepted that the data are distributed close to normal.

In the main problem of the study, an answer was sought to the question "At what level are the thoughts of pre-service teachers preparing for KPSS about time management?". Table 9 shows the statistical value describing the thoughts of the pre-service teachers about time management.

Table 9: Statistical Value Describing the Thoughts of
 Pre-service Teachers Preparing for KPSS about Time Management

N	Lowest	Highest	Average	SS
348	39	94	67,58	9,08

When Table 9 is analysed, it is seen that the arithmetic mean of the scores indicating the pre-service teachers' thoughts about time management is 67,58 and the standard deviation is 9,08. Since there is a normal distribution, by adding and subtracting the standard deviation value (9,08) to the arithmetic mean value (67,58), the thought levels of the pre-service teachers about time management were classified as "high, medium and low". High level of thought was determined as 76,66 and above. Low level of thought was determined as 58,5 and below. The medium level of thought was determined as the range between 58,5 and 76,66. Table 10 shows the distribution of the scores related to the pre-service teachers' thoughts about time management.

Table 10: Distribution of Scores Related to the Thoughts of
 Pre-service teachers Preparing for KPSS on Time Management

Points	Frequency	Level
76,66 and higher	49	High
Between 58,5 and 76,66	246	Average
58,5 and lower	53	Low
Total	348	

When Table 10 is analysed, it is seen that 246 of the pre-service teachers have medium, 49 of them have high and 53 of them have low level of time management thinking. In other words, the pre-service teachers' level of thinking about time management was found to be at "medium" level. In order to examine in detail, the reason why the pre-service teachers' level of thinking about time management was at a medium level, the mean, standard deviation, and level of agreement of the answers given by the pre-service teachers to the items in the scale are given in Table 11.

When Table 11 is analysed, it is seen that the highest mean belongs to the item "Does your daily cigarette use exceed one packet?" (mean = 3,66). Pre-service teachers' level of agreement with this item corresponds to the level of "never". It can be concluded that the pre-service teachers do not spare much time for time-wasting things such as smoking habit. When Table 12 is analysed, it is seen that the lowest mean belongs to the item "Do you write down your daily goals in an agenda?" (mean = 1,93).

Table 11: Means, Standard Deviations and Levels of Agreement
 of Pre-service Teachers Preparing for KPSS on Time Management

No	Articles	Mean	SS	Level of Agreement
1	"Do you write down your daily goals in an organiser?"	1,93	,848	Sometimes
2	"Do you keep class and social activities separate from each other?"	2,88	,905	Often
3	"Do you start your day by planning your time?"	2,40	,910	Sometimes
4	At the end of a day, do you evaluate how you used your time that day?	2,41	,927	Sometimes
5	"Do you do your most difficult tasks in the first hours of the day?"	2,64	1,025	Often
6	"Do you programme all the activities you need to do during the day step by step?"	2,29	,848	Sometimes
7	"Do you clarify in advance what you will do a week later?"	2,45	,892	Sometimes
8	"Before you start a job, do you say: "This job must be finished by this date at the latest."?"	2,78	,866	Often
9	"How often do you feel in control of your own time?"	2,73	,798	Often
10	"When you start a new week, are your goals for the week ready?"	2,40	,858	Sometimes
11	"Do you usually fulfil all the goals you set for the week?"	2,48	,698	Sometimes
12	"Do you make a list of things you have to do every day?"	2,06	,915	Sometimes
13	"Do you spend more time on personal care during the day than on your studies?"	2,85	,866	Sometimes
14	"Do you keep printed resources that are not useful in the short term but that you think will be useful in the future?"	3,09	,894	Often
15	"Does your daily cigarette consumption exceed one packet?"	3,66	,713	Never
16	"Do you quickly skim material before deciding to read it in detail?"	2,74	,845	Often
17	"Do you spend every day doing nothing but planning?"	3,32	,823	Never
18	"When you have more than one thing to do, how often do you try to put them in order of importance?"	2,87	,820	Often
19	"When you have an idea in your head, do you try to keep it in your mind instead of writing it down?"	2,47	,976	Often
20	"Would you consider it unnecessary for a pre-service teacher preparing for KPSS to make a daily, weekly or semester plan?"	3,37	,909	Never
21	"Do you usually listen to music or watch television while studying?"	3,19	,877	Sometimes
22	"Do you keep materials that do not belong to the course you are studying on your desk?"	2,93	,963	Sometimes
23	"Do you ever do things that prevent you from studying because you cannot say no to your friends?"	2,67	,890	Sometimes
24	"Are there times when you say, 'A whole day has passed, I did nothing'?"	2,33	,893	Often
25	"Do you spend your time doing useful things?"	2,67	,737	Often

Pre-service teachers' level of agreement with this item corresponds to "occasionally" level of agreement. From this point, it is seen that the pre-service teachers exhibit the behaviour of occasionally writing down the goals they set daily.

In the first sub-problem of the study, an answer was sought to the question "Is there a significant difference in the thoughts of pre-service teachers preparing for KPSS about time management according to gender?". An independent t-test was conducted to see whether there was a statistical difference. Independent t test results are given in Table 12.

Table 12: Independent T Test Showing the Thoughts of Pre-Service Teachers Preparing for KPSS on Time Management according to Gender

	Gender	N	Arithmetic Mean	SS	Sd	t	p
Time Management	Female	254	2,77	,33	346	6,484	,000*
	Male	94	2,50	,36			

*p<,05.

When Table 12 is analysed, a significant difference was found between the pre-service teachers' thoughts on time management according to gender ($t_{(346)} = 6,484$, $p < ,05$). The mean of female pre-service teachers' thoughts on time management (mean = 2,77) was higher than the mean of male pre-service teachers' thoughts on time management (mean = 2,50). Based on these results, it can be said that female pre-service teachers have more time management skills than male pre-service teachers. In other words, there is a significant difference between female and male pre-service teachers' thoughts on time management. It has been observed that female and male pre-service teachers participating in this research have different time management skills.

In the second sub-problem of the study, an answer was sought to the question "Is there a significant difference in the time management thoughts of pre-service teachers preparing for KPSS according to age?". Independent t test was conducted to see whether there was a statistical difference. Independent t test results are given in Table 13.

Table 13: Independent T Test Showing the Thoughts of Pre-service Teachers Preparing for KPSS about Time Management According to Age

	Age	N	Arithmetic Mean	SS	Sd	t	p
Time Management	Between 18 and 22	227	2,68	,36	346	-1,000	,318*
	23 and older	121	2,73	,36			

*p>,05

When Table 13 is analysed, no significant difference was found between the pre-service teachers' opinions on time management according to age ($t_{(346)} = -1,000$, $p > ,05$). The averages of the time management opinions of the pre-service teachers aged 18-22 and 23 and over are (mean = 2,63) for the pre-service teachers aged 18-22 and (mean = 2,73) for the pre-service teachers aged 23 and over, respectively. Although the mean of the thoughts of the pre-service teachers aged 23 and over is higher than the mean of the

thoughts of the pre-service teachers aged 18-22, there is no significant difference between these two groups. In other words, it was concluded that the pre-service teachers aged 18-22 and 23 and over who participated in the research exhibited similar situations about their thoughts on time management. In addition, it has been observed that age is not an effective factor in the evaluation of pre-service teachers' thoughts on time management. There was no significant difference between the time management thoughts of the pre-service teachers aged 18-22 and 23 and over who participated in this research.

In the third sub-problem of the research, an answer was sought to the question "Is there a significant difference in the time management thoughts of pre-service teachers preparing for KPSS according to the programme they have studied?". Descriptive statistics analyses indicating the thoughts of the pre-service teachers about time management according to the department they study are given in Table 14.

Table 14: Descriptive Statistics Analysis of Time Management Thoughts of Pre-service Teachers Preparing for KPSS According to the Programme of Study

Programme	N	Mean	SS
Form	42	2,64	,398
Turkish	41	2,73	,259
English	33	2,59	,494
Science	49	2,71	,338
Mathematics	21	2,76	,335
Pre-school	39	2,70	,287
Social studies	27	2,56	,422
Other	96	2,77	,349
Total	348	2,70	,363

Table 14 shows the averages of the time management thoughts of the pre-service teachers who participated in this study according to their departments. It is seen that the highest mean belongs to the pre-service teachers who chose "Other" as their programme of study (mean = 2,77) and the lowest mean belongs to the pre-service teachers whose programme of study is social studies teaching (mean = 2,56). It is seen that the values of the remaining department groups are between these two averages.

Levene's Test should be performed to see whether the condition of "equality of variances of groups", which is one of the conditions of ANOVA (One-Way Analysis of Variance) for unrelated (independent) samples, is fulfilled. In cases where the condition of equality of variances of the groups is not met (when the significance of Levene's Test is $p < .05$), the tests that can be preferred are Tamhane's T2, Dunnett's T3, Games-Howell, Dunnett's C tests (Can, 2016, p.152). Variance analysis results show whether the groups differ from each other. However, it does not contain information about which groups the differences are between. When it is assumed that group variances are not equal, tests such as Tamhane's T2, Dunnett's T3, Games-Howell, Dunnett's C tests provide information about the differences between groups (Gürbüz & Şahin, 2018, p.239). Table 15 shows the results of the homogeneity of variances test for time management.

Table 15: Homogeneity of Variances Test for Time Management

Levene Statistics	P
3,539	,001*

*p<,05

When Table 15 is analysed, it is seen that the variances are not homogenous since $p < .05$ in the homogeneity of variances test. In cases where there were differences between the groups, the results of the multiple comparison Tamhane's T2 test were analysed to obtain information about which groups these differences originated from. One-way Analysis of Variance (ANOVA) test was performed to see whether there was a statistical difference in the pre-service teachers' thoughts about time management according to the department they studied. ANOVA test results are given in Table 16.

Table 16: One-Way Analysis of Variance (ANOVA) Showing the Thoughts of Pre-service Teachers Preparing for KPSS about Time Management According to the Department They Studied

Source of Variance	Total Squares	Sd	Mean of Squares	F	p
Inter-group	1,612	7	,230	1,772	,092*
Intra-group	44,203	340	,130		
Total	45,815	347			

*p>,05

Based on the results in Table 16, it is seen that the significance rate is $p > .05$ and there is no significant difference between the pre-service teachers' thoughts on time management according to the department they study. From this point of view, it can be said that the pre-service teachers have shown similarity in their thoughts about time management regardless of the department they study. No significant difference was found between the time management thoughts of the pre-service teachers from different departments participating in this study.

In the fourth sub-problem of the study, an answer was sought to the question "Is there a significant difference in the time management thoughts of pre-service teachers preparing for KPSS according to their employment status?". Independent t test was conducted to see whether there was a statistical difference. The results of the independent t test showing the pre-service teachers' thoughts about time management according to their employment status are given in Table 17.

Table 17: Independent T Test Showing the Opinions of Pre-service Teachers Preparing for KPSS about Time Management According to Their Employment Status

	Employment Status	N	Arithmetic Mean	SS	Sd	T	p
Time Management	I am employed	42	2,71	,39	346	,204	,839*
	I am non-employed	306	2,70	,35			

*p>,05

Based on the results in Table 17, no significant difference was found between the pre-service teachers' opinions on time management according to their employment status ($t_{(346)} = ,204, p > ,05$). The mean of working and non-working pre-service teachers' opinions about time management are (mean = 2,71) for employed pre-service teachers and (mean = 2,70) for non-employed pre-service teachers, respectively. Although the mean opinions of the employed pre-service teachers are higher than the mean opinions of the non-employed pre-service teachers, there is no significant difference between these two groups. In other words, it was concluded that the employed and non-employed pre-service teachers who participated in the study exhibited similar cases about their thoughts on time management. In addition, it was observed that the employment status was not an effective factor in the evaluation of the pre-service teachers' thoughts about time management. It was seen that the employed and non-employed pre-service teachers participating in this research did not have different skills related to time management.

In the fifth sub-problem of the research, an answer was sought to the question "Is there a significant difference in the time management thoughts of pre-service teachers preparing for KPSS according to marital status?". Independent t test was conducted to see whether there was a statistical difference. The results of the independent t test showing the pre-service teachers' thoughts about time management according to marital status are given in Table 18.

Table 18: Independent T Test Showing the Time Management Opinions of Pre-service Teachers Preparing for KPSS According to Marital Status

	Marital Status	N	Arithmetic Mean	SS	Sd	t	p
Time Management	Married	17	2,93	,339	346	2,735	,007*
	Single	331	2,69	,360			

* $p < ,05$

Based on the findings in Table 18, a significant difference was found between the pre-service teachers' thoughts on time management according to their marital status ($t_{(346)} = 2,735, p < ,05$). The mean of married pre-service teachers' thoughts on time management (mean = 2,93) was higher than the mean of single pre-service teachers' thoughts on time management (mean = 2,69). Considering these results, it can be said that married pre-service teachers have more time management skills than single pre-service teachers. In other words, there is a significant difference between married and single pre-service teachers' thoughts on time management. A significant difference was found in the thoughts of married and single pre-service teachers about time management.

In the sixth sub-problem of the research, an answer was sought to the question "Is there a significant difference in the time management thoughts of pre-service teachers preparing for KPSS according to the duration of preparation for the exam?". The results of the descriptive statistics analyses showing the pre-service teachers' thoughts on time management according to the duration of preparation for the exam are given in Table 19.

Table 19: Descriptive Statistics Analysis of Pre-service Teachers' Thoughts on Time Management According to the Duration of Preparation for KPSS

Preparation Time	N	Mean	SS
Less than 1 year	242	2,66	,362
1 year	44	2,76	,329
2 years	45	2,82	,325
3 years	12	2,85	,527
4 years and more	5	2,68	,264
Total	348	2,70	,363

Table 19 shows the averages of the thoughts of the pre-service teachers who participated in this study about time management according to the duration of preparation for the exam. The highest mean belongs to the pre-service teachers who answered, "3 years" (mean = 2,85) and the lowest mean belongs to the pre-service teachers who answered, "less than 1 year" (mean = 2,66). It is seen that the values of the pre-service teachers who answered the other options are between these two averages. The homogeneity of variances was analysed by Levene's test. Table 20 shows the results of the homogeneity of variances test for time management.

Table 20: Homogeneity of Variances Test for Time Management

Levene Statistics	P
1,697	,150*

*p>,05

In Table 20, the homogeneity of variances test shows that the variances are homogeneous since the significance value is p>,05. One-way Analysis of Variance (ANOVA) test was performed to see whether there was a statistical difference in the pre-service teachers' thoughts about time management according to the duration of preparation for the exam. The results of the ANOVA test are given in Table 21.

Table 21: One-Way Analysis of Variance (ANOVA) Showing the Thoughts of Pre-service Teachers Preparing for KPSS about Time Management According to the Duration of Preparation for the Exam

Source of Variance	Total Squares	Sd	Mean of Squares	F	p
Inter-group	1,448	4	,362	2,799	,026*
Intra-group	44,366	343	,129		
Total	45,815	347			

*p<,05

Based on the results in Table 21, it is seen that the significance rate is p<.05 and there is a significant difference between the pre-service teachers' thoughts on time management according to the duration of preparation for the exam. When the equality of group variances is assumed, tests such as Tukey, Scheffe and LSD provide information about the differences between groups (Gürbüz & Şahin, 2018, p.239). LSD test was performed

to obtain information about which groups the differences were between. Table 22 shows the results of the LSD test.

Table 22: LSD Test Results Regarding Pre-service Teachers' Thoughts on Time Management According to the Duration of Preparation for the Exam

(I) Preparation Time	(J) Preparation Time	Mean Difference (I-J)	p
Less than 1 year	1 year	-,09620	,104
	2 years	-,15931*	,007
	3 years	-,19287	,071
	4 years and more	-,02420	,882
1 year	Less than 1 year	,09620	,104
	2 years	-,06311	,408
	3 years	-,09667	,410
	4 years and more	,07200	,672
2 years	Less than 1 year	,15931*	,007
	1 year	,06311	,408
	3 years	-,03356	,774
	4 years and more	,13511	,426
3 years	Less than 1 year	,19287	,071
	1 year	,09667	,410
	2 years	,03356	,774
	4 years and more	,16867	,379
4 years and more	Less than 1 year	,02420	,882
	1 year	-,07200	,672
	2 years	-,13511	,426
	3 years	-,16867	,379

*p<,05

When the results of the multiple comparison LSD test showing the groups from which the differences given in Table 22 are analysed, it was found that there was no significant difference between the time management opinions of the pre-service teachers whose preparation period for the exam was 1 year (mean = 2,76), 3 years (mean = 2,85), 4 years and more (mean = 2,68). However, there is a significant difference (p<,05) between the time management opinions of the pre-service teachers whose preparation period for the exam is less than 1 year (mean = 2,66) and the time management opinions of the pre-service teachers whose preparation period for the exam is 2 years (mean = 2,82). This difference is in favour of the pre-service teachers whose preparation period is 2 years. In other words, it can be understood that the pre-service teachers whose preparation period for the exam is 2 years are more successful in time management than the pre-service teachers whose preparation period for the exam is less than 1 year.

5. Results and Discussion

In this study, the thoughts of the pre-service teachers preparing for KPSS about time management were found to be at a medium level. It can be interpreted that the pre-service

teachers are not very good at time management. When the studies in the literature are examined, it is seen that similar results have been reached among the studies (İşcan, 2008; Uyduran, 2014; Boduç, 2016; Türkan, 2018). There is a difference between the "medium level" result obtained from this study and some studies (high level) (Gözel, 2009; İlerleyen, 2014; Şahin, 2014).

It was found that the pre-service teachers' thoughts about time management differed according to gender and this difference was found to be in favour of female pre-service teachers. The results of the research supported the results of the studies in the literature (Trueman & Hartley, 1996; Misra & McKean, 2000; Erdul, 2005; Yücel, 2014; Yavuz, 2018; Tecer, 2019; Gündüz, 2014). It is seen that there are studies that show similarities with this result of the research as well as studies that show contradictions (Gözel, 2009; Türkan, 2018).

It was found that the pre-service teachers' thoughts about time management did not differ according to age. This result supported the results of studies in the literature (Türkmen, 2005; Gümüşgül, 2013; Yavuz, 2018; Uğurlu, 2019). Studies that differed from this result of the study were also identified (İlerleyen, 2014; Uyduran, 2014; Çınar, 2018). It was found that the pre-service teachers' thoughts about time management did not differ according to the department they studied. In other words, it can be said that the pre-service teachers showed similarity in their thoughts about time management regardless of the department they studied. This result supported the results of studies in the literature (Andıç, 2009; Karaoğlu, 2015).

It was found that the pre-service teachers' thoughts about time management did not differ according to their working status. It was found that the research was similar to the study of Küçüktop (2018).

It was concluded that the pre-service teachers' thoughts about time management differed according to marital status and this difference was found in favour of married pre-service teachers. This result of the study supported the results of the studies conducted in the literature (Türkmen, 2005; Gözel, 2009; Boduç, 2016; Hacıbalayeva, 2017; Genç, 2019). Studies contradicting this result of the study were also found (İlerleyen, 2014; Uyduran, 2014; Türkan, 2018). It was concluded that the pre-service teachers' thoughts about time management differed according to the duration of preparation for the exam. This difference was found to be in favour of pre-service teachers with a preparation period of 2 years. When the studies in the literature are examined, no study related to this sub-problem was found.

As a result, it was seen that there are studies on time management applied to different groups in the literature. However, there is no study on pre-service teachers preparing for KPSS. With this study, this deficiency in the literature has been tried to be compensated. When different studies were examined, it was seen that time management was analysed in terms of different variables. In this study, the thoughts of the pre-service teachers about time management were analysed in terms of gender, age, department they studied, employment status, marital status, exam preparation time variables and the results obtained were given.

5.1 Recommendations

- In order to increase their level of knowledge about time management, pre-service teachers can read books written by experts or attend trainings on time management.
- Pre-service teachers can make time planning and thus ensure their own control and increase their level of coping with time enemies.
- In order to inform the pre-service teachers about the efficient use of time, lectures or seminars can be organised at universities.
- This study was conducted to determine the thoughts of pre-service teachers preparing for KPSS about time management. The research can be conducted on different groups.
- The research was conducted with the pre-service teachers in Isparta and Burdur. The research can be conducted throughout Turkey and more general results can be obtained.
- The research was conducted on the variables of gender, age, department, employment status, marital status, and preparation time for the exam. The research can be conducted using different variables.

Conflict of Interest Statement

The authors declare no conflicts of interest.

About the Author(s)

Fatma Nur Ürekli, Graduate Student, Institute of Education Sciences, Department of Basic Education, Classroom Education Master's Program with Thesis, Burdur Mehmet Akif Ersoy University, Türkiye. She completed her master's degree at Mehmet Akif Ersoy University. She works on time management.

Nihat Karaer, Professor, Department of Turkish and Social Sciences Education, Faculty of Education, Burdur Mehmet Akif Ersoy University, Türkiye. He conducts research on Ottoman History, Renewal History and European History.

Mevlüt Gündüz, Associate Professor, Department of Basic Education, Faculty of Education, Suleyman Demirel University, Türkiye. He conducts research on basic education and values education.

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