

Investigation of Graduate and Doctoral Students' Attitudes towards Postgraduate Education According to Various Variables

Şaban Çetin¹ Tülay Gül Taşkın Gökçe² Hatice Büşra Yılmaz Tam³ Kübra Eke⁴

Article History:

Received 07.09.2023

Received in revised form 06.12.2023

Accepted

Available online

01.01.2024

The aim of this study is to examine the attitudes of graduate and doctoral students towards postgraduate education in terms of various variables. For this purpose, the research was designed in the survey model. The participants of the research are 663 students who are continuing their postgraduate education at a university. The data were collected with the "Attitude towards Postgraduate Education Scale" developed by Çetin et al. (2023). In the analysis of the data, Kruskal-Wallis H test and Mann-Whitney U test, which are non-parametric tests, were used according to the structure of the variables in the data set. As a result of the Kruskal-Wallis H test and the Mann-Whitney U test, the effect sizes of the variables with significant differences between them were determined and interpreted. As a result of the research, it was seen that more than half of the participants had a positive attitude towards postgraduate education. In the sub-dimensions of valuing postgraduate education and giving importance to postgraduate education, a significant difference was found in favor of female students in the scores of attitudes towards postgraduate education within the gender variable. No significant difference was observed in any of the sub-dimensions in terms of the age variable. In terms of the variable of the department where the postgraduate education is given, the attitude scores of the students studying in the education departments showed a significant difference in the first two dimensions, compared to the students of the science departments. When the students' attitude scores were analyzed according to the type of program, it was observed that there was a significant difference in favor of doctoral students in the first two dimensions.

© IJERE. All rights reserved

Keywords: Attitude, postgraduate education, attitude towards postgraduate education

INTRODUCTION

With the transition to the information age, which has a rising momentum of change and transformation, the human characteristics required by the social and economic structure are redefined. In the information age, there is a need for high-profile individuals who are flexible and have the ability to research and question with different perspectives, produce, develop and use information, and can establish qualified relations with their environment by using their communication skills effectively along with social skills such as critical thinking and empathy (Ogretir & Eke, 2018). Universities, which carry out education, training and research activities at the higher education level, allow the training of high-profile individuals who contribute to local and universal developments with their scientific studies through postgraduate education.

Postgraduate education is defined as a planned and programmed upper-level education process that allows individuals with undergraduate degrees to acquire research, production, interpretation, evaluation and related professional culture, academic culture and ethical issues at the highest social, cognitive and auditory levels, through institutes in their field of graduation or in the field of science they are interested in (Coe-Nesbitt et al., 2021; Ince & Korkusuz, 2006).

Postgraduate education is an education step that all developed and developing countries focus on sensitively, which has become an indispensable element of country education policies with various systems and active updates. According to the Postgraduate Education and Teaching Regulations established by the Council of Higher Education in our country, postgraduate education and teaching include master's, doctorate and proficiency in art programs carried out in higher education institutions. While the aim of the master's program with thesis is to enable the student to gain the ability to access, compile, interpret and evaluate information by using scientific research methods, the aim of the non-thesis master's program is to show the student how to use the existing knowledge in practice by gaining knowledge on professional issues. The aim of doctoral programs is to provide students with the necessary skills to conduct independent research, to interpret and analyze scientific problems and data with a broad and deep perspective, and to reach new syntheses (Higher Education Council [YÖK], 2016). In addition, in the Turkey Higher Education Qualifications Framework, postgraduate education qualifications are handled in terms of the knowledge, skills and competencies that an individual can know, do and be competent, and the objectives and outputs have been made clear (Higher Education Council [YÖK], 2010).

The quality of postgraduate education, whose basic structure is based on scientific and individual production by evaluating research and education together, both affects and is affected by the quality of the individual and society. With postgraduate education, individuals have the chance to continue their personal development,

¹ Gazi University, scetin@gazi.edu.tr, <https://orcid.org/0000-0002-4319-5667>

² Gazi University, gultaskingokce@gazi.edu.tr, <https://orcid.org/0000-0001-9250-1213>

³ Muş Alparslan University, hb.yilmaz@alparslan.edu.tr, <https://orcid.org/0000-0003-2563-8353>

⁴ Gazi University, kubraeke@gazi.edu.tr, <https://orcid.org/0000-0003-4306-0196>

expand their perspectives, and contribute to the development of society (Aslan, 2007). For this reason, the tendencies and attitudes of individuals towards inquiry, research and development, along with the quality of postgraduate education, take their place in the literature as an important issue that needs to be addressed. Postgraduate education is a voluntary process in which individuals with the desire and potential to learn and research are included only at their own will (Kutluca Canbulat & Çakmak, 2007). Attitudes can have a decisive role in the processes that individuals will be involved in in line with their own interests and preferences.

Attitude is a state of readiness to show a cognitive behavior that creates an active or guiding force on an individual's reactions to all objects and situations (Allport, 1935). According to Katz, attitude is the individual's tendency to evaluate the objects or events around him/her as positive or negative (Katz, 1960). Attitude consists of the cognitive element, which includes beliefs about objects, the affective element, which consists of emotions based on beliefs, and the behavioral element, which expresses readiness to react (Çetin, 2006). The concept of attitude is generally expressed as people's reaction tendency towards any object, person or phenomenon in their environment, and it is stated that there is a close relationship between the society and culture in which individuals live, their personality traits and experiential experiences in terms of their attitudes (İnceoğlu, 2011). It is stated in the literature that gaining postgraduate qualifications adds value to an individual's work history and the knowledge gained supports more effective decision-making processes (Drennan & Hyde, 2008; Spence, 2004). It is thought that student attitudes towards postgraduate education may be related to benefiting from postgraduate education in a qualified manner. Identifying various variables affecting students' attitudes is considered important in terms of carrying out activities to improve postgraduate education.

There are various studies in the literature examining attitudes towards postgraduate education. In the research conducted by Ören & Karapınar (2016), it was stated that as teachers' perception of competence in practicing their profession in the classroom increases, their attitudes towards postgraduate education increase. In the research conducted by İlhan, Sünkü & Yılmaz (2012), it was found that the attitudes of primary school teacher candidates towards the function of postgraduate education did not show a significant difference in terms of gender variable but showed a significant difference in terms of class and department variables. In another study, the attitudes of science teacher candidates towards postgraduate education were examined and their attitudes were found to be high. There was no significant difference between the variables examined in the study (Demir & Beşoluk, 2017). When the studies in the literature were examined, it was seen that limited branches and limited variables were examined, and it was determined that these variables had different effects on attitudes towards postgraduate education. In this regard, it was felt that it was necessary to conduct more comprehensive research, addressing various variables. Examining the attitudes of postgraduate students studying in different disciplines towards postgraduate education is important in order to develop and improve education and training activities. The aim of this research is to examine the attitudes of graduate and doctoral students towards postgraduate education in terms of various variables. In this regard, the aim of the research is to determine the attitudes of students receiving postgraduate education towards postgraduate education. For this purpose, answers were sought to the following questions:

1. What are the attitudes of students receiving postgraduate education towards postgraduate education?
2. Do students' attitudes differ significantly according to gender?
3. Do students' attitudes differ significantly according to age?
4. Do students' attitudes differ significantly according to department?
5. Do students' attitudes differ significantly according to program type?
6. Do students' attitudes differ significantly according to their stage in postgraduate education?
7. Do students' attitudes differ significantly according to their reasons for preferring postgraduate education?

METHOD

In this section, the design of the study, the participants, the data collection tools and the techniques used in the analysis of the data are given.

Research Design

This research, in which the attitudes of students receiving postgraduate education towards postgraduate education are tried to be determined, has a descriptive feature in the survey model. Survey research provides a description of tendencies, attitudes, or opinions (Creswell, 2012).

Participants

The sample of the research consists of students continuing their postgraduate and doctoral education at a state university. Appropriate sampling method was used to determine the sample of the research. Participation in the research was conducted on a voluntary basis. 633 students participated in the research voluntarily. Data from participants were obtained through an online survey. Ethics committee approval was obtained before starting the research. Demographic characteristics of the participants are listed in Table 1.

Table 1: Demographic Information of Participations

Gender	N	%
Male	243	38.4
Female	390	61.6
Total	633	100.0
Age	N	%
22-27	156	24.6
28-33	212	33.5
34-39	167	26.4
40-45	65	10.3
46 years and older	33	5.2
Total	633	100
Department	N	%
Education	300	47.4
Science	333	52.6
Total	633	100
Program Type	N	%
Postgraduate	418	66.0
Doctorate	215	34.0
Total	633	100
Their Stage in Postgraduate Education	N	%
Thesis Term	299	47.2
Course Term	334	52.8
Total	633	100
Reason for Preferring Postgraduate Education	N	%
Personal Development	182	28.8
Academic Development	240	37.9
Professional Development	211	33.3
Total	633	100.0

According to Table 1, most of the participants are female and their age range is between 28 and 33. When the number of participants is examined according to the departments, it is seen that there are more participants from the field of science. Those receiving doctoral education are about half as many as those receiving postgraduate education. The number of participants who say that they receive postgraduate education for academic development is higher than those who prefer it for personal and professional development, and those who are in the course term within the postgraduate education are more than those who are in the thesis term.

Data Collection Tool

Questionnaire form was used as data collection tool in the research. The data collection tool consists of two parts. In the first part, there are questions based on checking students' personal information. In the second part, the "Attitude towards Postgraduate Education Scale" developed by Çetin, Eke, Yılmaz Tam, Taşkın Gökçe & Görkaş Kayabaşı (2023) was used. The scale is a five-point Likert-type scale consisting of 21 items.

There are three sub-factors of the scale, which are "valuing postgraduate education, giving importance to postgraduate education, and resistance to postgraduate education". The Cronbach Alpha reliability coefficient for the reliability of the scale is .94, and the reliability values for each sub-dimension are .91, .87, .86. The total explained variance of the scale is 61.209%. The highest score that can be obtained on the scale is 105 and the lowest score is 21.

Data Collection and Analysis

The data obtained as a result of the application of the measurement tool were analyzed using the SPSS 27 program. First of all, it was determined whether the scores obtained from the overall scale and its sub-dimensions showed a normal distribution in line with the independent variables determined on the data set. In this direction, stem-and-leaf plot and histogram graphs and skewness and kurtosis coefficients of the scores obtained from the overall scale and its sub-dimensions were examined according to their variables, and Kolmogorov-Smirnov test results were evaluated. As a result of the evaluations, it was decided that the distribution was not normal.

According to the structure of the variables in the data set, Kruskal-Wallis H test and Mann-Whitney U test, which are non-parametric tests, were used. The effect value of the independent variables, for which the Kruskal-Wallis H test was applied, on the dimensions with significant differences between them was determined by the eta-square (η^2) statistic. The etha-squared value (η^2) ranges from 0.00 to 1.00, and η^2 values at the .01, .06 and .14 levels were interpreted as "small", "medium" and "large" effect sizes, respectively (Buyukozturk, 2011, p.44). The effect size for the Mann-Whitney U test was calculated using the " $r=z/\sqrt{N}$ " formula. The r value found indicates the Cohen criteria, .1=small, .3=medium, .5=large effect amounts (Özsoy & Özsoy, 2013; Pallant, 2016, p. 252). Significance level was taken as $p<.05$.

FINDINGS and DISCUSSION

In this section, the findings obtained from the research and the discussions made based on the findings in the light of the literature are presented respectively, in line with the sub-problems of the research.

In this regard, the first sub-problem of the research is "What are the attitudes of students receiving postgraduate education towards postgraduate education?" The findings regarding the first sub-problem are given in Table 2.

Table 2: Distribution of Attitude Scores of Students Receiving Postgraduate Education towards Postgraduate Education

Attitude	N	X	sd	Min.	Max.	Number of Items	X	
							71.41-105.00	
							f	%
	663	72.36	6.44	41	84	21	382	60.35

*high (71.41 points and above), medium (54.61-71.40), low (54.60 points and below)

When Table 2 is examined, it is observed that the total attitude score average of the students participating in the research from the scale is $X=72.36$. Considering the five-choice answer categories and the high score scale that can be obtained from the scale, the attitude score average of more than half (60.35%) of the 382 students participating in the research is between 71.41 and 105.00. Based on this finding, it can be said that more than half of the students have a positive attitude towards postgraduate education. On the other hand, considering that 241 students (36%) are in an "undecided" structure since they are still in the course stage or at the beginning of the process, etc. and that the students at the thesis stage have a more positive attitude than the students at the course stage, which is other research findings, the possibility that "undecided" attitudes can be shaped into positive ones is getting stronger. As a result of the answers given by the students to the measurement tool, the distribution of scores related to the sub-dimensions of the scale is also presented in Table 3.

Table 3: Distribution of Scores of Sub-Dimensions of Attitude towards Postgraduate Education Scale

Sub-Dimensions of the Scale	N	X	ss	Min.	Max.	Number of Items
1 st Sub-dimension: Valuing Postgraduate Education	663	38.18	5.91	9	45	9
2 nd Sub-dimension: Giving Importance to Postgraduate Education	663	23.90	4.97	6	30	6
3 rd Sub-dimension: Resistance to Postgraduate Education	663	10.27	4.02	6	30	6

Table 3 shows the distribution of the scores of the students receiving postgraduate education regarding the sub-dimensions of the scale for postgraduate education. When the distribution of the three sub-dimensions of the scale is examined, it is observed that the attitude scores in the first two sub-dimensions of the scale are high, and the average score in the third sub-dimension is low. [For the 1st sub-dimension: high (30.61 points and above), medium (23.41-30.60), low (23.40 points and below); For the 2nd and 3rd sub-dimensions: high (20.41 points and above), medium (15.61-20.40), low (15.60 points and below)].

The second sub-problem of the study is "Do students' attitudes towards postgraduate education differ significantly according to their gender?" Findings related to this sub-problem are given in Table 4.

Table 4: Mann-Whitney U-Test Results of Students' Attitude Scores towards Postgraduate Education according to Gender

	Cinsiyet	N	Mean Rank	Sum of Ranks	U	P	Effect size (r)
1 st Sub-dimension	Female	390	331.10	129130.00	41885.000	.014	.10
	Male	243	294.37	71531.00			
2 nd Sub-dimension	Female	390	330.63	128946.00	42069.000	.017	.09
	Male	243	295.12	71715.00			
3 rd Sub-dimension	Female	390	306.51	119540.00	43295.000	.066	-
	Male	243	333.83	81121.00			
Overall Scale	Female	390	332.80	129790.50	41224.500	.006	.10
	Male	243	291.65	70870.50			

When Table 4 is examined, the students' attitude scores towards postgraduate education showed a significant difference in favor of female students according to the gender variable in the context of overall scale ($U=41224.500$, $p<.05$) and 1st sub-dimension ($U=41885.000$, $p<.05$) and 2nd sub-dimension ($U=42069.000$, $p<.05$). In the study by İlter (2020) on teachers' attitudes towards postgraduate education, it was found that male teachers' attitude scores were higher. However, in the 3rd sub-dimension ($U=42069.000$, $p>.05$), it is seen that there is no significant difference in terms of gender variable. When the literature is examined, it is seen that there is no gender difference when the attitudes of teacher candidates towards postgraduate education are examined (Demir & Beşoluk, 2017; İlhan, Öner Sünkür & Yılmaz, 2012; Özbilen & Günay, 2014). Likewise, there is no significant difference according to gender in teachers receiving postgraduate education (Akpolat, 2023; Işıkgöz, 2019). When the mean ranks in the table are examined, it is observed that the attitudes of female students towards postgraduate education are more positive than male students in the overall scale and in the 1st and 2nd sub-dimensions of the scale. According to the calculated r value to determine the effect level of the gender variable on attitudes towards postgraduate education, it is observed that the gender variable has a "small" effect size in the overall scale ($r=.10$), the 1st sub-dimension ($r=.09$) and the 2nd sub-dimension ($r=.10$).

The third sub-problem of the study is "Do students' attitudes towards postgraduate education differ significantly according to age variable?" Findings related to this sub-problem are given in Table 5.

Table 5: Kruskal Wallis Results of Students' Attitude Scores towards Postgraduate Education according to Age

	Age	N	Mean Rank.	X ²	df	p	Effect size (r)	Difference Between Groups
1st Sub-dimension	22-27	156	325.44	2.966	4	.563	-	-
	28-33	212	312.18					
	34-39	167	321.99					
	40-45	65	287.06					
	46 ve üzeri	33	341.79					
2nd Sub-dimension	22-27	156	342.01	4.868	4	.301	-	-
	28-33	212	314.35					
	34-39	167	301.41					
	40-45	65	300.20					
	46 ve üzeri	33	327.77					
3rd Sub-dimension	22-27	156	299.59	3.735	4	.443	-	-
	28-33	212	316.33					
	34-39	167	329.27					
	40-45	65	340.34					
	46 ve üzeri	33	295.56					
Overall Scale	22-27	156	326.53	1.637	4	.802	-	-
	28-33	212	313.12					
	34-39	167	318.51					
	40-45	65	295.55					
	46 ve üzeri	33	331.50					

When Table 5 is examined, it is observed that there is no significant difference in the attitude scores of the students towards postgraduate education according to the age variable in the context of scores obtained from the overall scale ($X^2=1.637$, $p>.05$) and the scale sub-dimensions ($X^2=2.966$, $p>.05$), ($X^2=4.868$, $p>.05$), ($X^2=3.735$, $p>.05$), respectively. In the study of Bayar (2022) on the attitudes of non-thesis master's degree students towards postgraduate education, it was found that age did not make a significant difference on attitude scores.

The fourth sub-problem of the study is "Do students' attitudes towards postgraduate education differ significantly according to their department?" Findings related to this sub-problem are given in Table 6.

Table 6: Mann-Whitney U-Test Results of Students' Attitude Scores towards Postgraduate Education according to Their Departments

	Department in Postgraduate Education	N	Mean Rank	Sum of Ranks	U	P	Effect size (r)
1st Sub-dimension	Education	300	338.99	101696.50	43353.500	.004	.11
	Science	333	297.19	98964.50			
2nd Sub-dimension	Education	300	333.94	100180.50	44869.500	.027	.09
	Science	333	301.74	100480.50			
3rd Sub-dimension	Education	300	302.08	90622.50	45472.500	.050	-
	Science	333	330.45	110038.50			
Overall Scale	Education	300	340.02	102005.00	43045.000	.003	.12
	Science	333	296.26	98656.00			

When Table 6 is examined, it is seen that students' attitude scores towards postgraduate education show a significant difference in favor of educational science students according to the department variable in the context of overall scale ($U=43045,000$, $p<.05$) and 1st sub-dimension ($U=43353,500$, $p<.05$) and 2nd sub-dimension ($U=44869,500$, $p<.05$), but there is no significant difference according to the department variable in the 3rd sub-dimension ($U=45472,500$, $p>.05$). Considering the mean ranks, it is observed that the attitudes of educational science students towards postgraduate education are more positive than the science students in the overall scale and in the 1st and 2nd sub-dimensions of the scale. When the literature was examined, it was seen in the

findings from the research conducted by İltter (2021) that the attitudes of teachers, who study in postgraduate education in teacher training fields, towards postgraduate education are high, which is similar to the current study. In the study conducted by Işıkgöz (2019), no significant difference was found in the scores of students' attitudes towards postgraduate education according to the sports and health sciences institute they attend. According to the r value calculated to determine the effect level of the department variable on attitudes towards postgraduate education, it is observed that the department variable has a "small" effect size within the overall scale ($r=.12$), 1st sub-dimension ($r=.11$) and 2nd Sub-dimension ($r=.09$)

The fifth sub-problem of the study is "Do students' attitudes towards postgraduate education differ significantly according to program type?" Findings related to this sub-problem are given in Table 7.

Table 7: Mann-Whitney U-Test Results of Students' Attitude Scores towards Postgraduate Education according to Program Type

	Postgraduate Program Type	N	Mean Rank	Sum of Ranks	U	p	Effect size (r)
1 st Sub-dimension	Postgraduate	418	304.53	127292.50	39721.500	.016	.10
	Doctorate	215	341.25	73368.50			
2 nd Sub-dimension	Postgraduate	418	300.75	125712.00	38141.000	.002	.12
	Doctorate	215	348.60	74949.00			
3 rd Sub-dimension	Postgraduate	418	319.91	133723.50	43717.500	.574	-
	Doctorate	215	311.34	66937.50			
Overall Scale	Postgraduate	418	297.75	124457.50	36886.500	.000	.14
	Doctorate	215	354.43	76203.50			

When Table 7 is examined, it is seen that the students' attitude scores towards postgraduate education show a significant difference in favor of doctoral students according to program type variable in the context of the overall scale ($U=36886.500$, $p<.05$) and the 1st Sub-dimension ($U=39721.500$, $p<.05$) and the 2nd Sub-dimension ($U=38141.000$, $p<.05$), but there is no significant difference in the context of the 3rd Sub-dimension ($U=43717.500$, $p>.05$) according to program type variable. Considering the mean ranks, it is observed that the attitudes of the doctoral students towards postgraduate education are more positive in the overall scale and in the 1st and 2nd sub-dimensions of the scale than the postgraduate students. Examining the literature, similar to the current research, in the research conducted by İltter (2020), it was seen that the average of the attitude scores of the teachers with doctorate degree towards postgraduate education is higher than the teachers with a master's degree. However, there is a study in the literature in which the postgraduate attitude doesn't differ according to the type of program (Işıkgöz, 2019). In this direction, it can be stated that the attitude towards postgraduate education varies according to the type of program. According to the r value calculated to determine the effect level of the program type variable on attitudes towards postgraduate education, it is observed that the program type variable has a "small" effect size within the overall scale ($r=.14$), the 1st sub-dimension ($r=.10$) and the 2nd Sub-dimension ($r=.12$).

The sixth sub-problem of the study is "Do students' attitudes towards postgraduate education differ significantly according to their stage in postgraduate education?" Findings related to this sub-problem are given in Table 8.

Table 8: Mann-Whitney U-Test Results of Students' Attitude Scores towards Postgraduate Education according to Their Stage in Postgraduate Education

	Stage in Postgraduate Education	N	Mean Rank	Sum of Ranks	U	p	Effect size (r)
1 st Sub-dimension	Thesis Term	299	337.96	101050.00	43666.000	.006	.11
	Course Term	334	298.24	99611.00			
2 nd Sub-dimension	Thesis Term	299	326.63	97662.50	47053.500	.209	-
	Course Term	334	308.38	102998.50			
3 rd Sub-dimension	Thesis Term	299	303.38	90710.50	45860.500	.074	-
	Course Term	334	329.19	109950.50			
Overall Scale	Thesis Term	299	332.44	99398.50	45317.500	.044	.08
	Course Term	334	303.18	101262.50			

When Table 8 is examined, it is seen that students' attitude scores towards postgraduate education show a significant difference in favor of the students in the thesis term in the context of the overall scale ($U=45317.500$, $p<.05$) and the 1st sub-dimension ($U=43666.000$, $p<.05$) according to the variable of their stage in postgraduate education, but they do not show a significant difference in the context of the 2nd sub-dimension ($U=47053.500$, $p>.05$) and the 3rd sub-dimension ($U=45860.500$, $p>.05$) according to the variable of their stage in postgraduate education. Considering the mean ranks, it is observed that the attitudes of the students in the thesis term towards postgraduate education are more positive in the overall scale and in the 1st sub-dimension of the scale than the students in the course term. It is stated in the literature that students who are at the course stage experience more anxiety than students who are at the thesis stage, and this may be related to the necessity of attendance, preparing a presentation, being active in the course, fear of failing in the exams, and the anxiety of determining the thesis topic during the course term (Erol, Ünsar & Yacan, 2020). It is thought that this situation may affect students' attitudes towards postgraduate education.

According to the r value calculated to determine the effect level of the variable of their stage in postgraduate education on attitudes towards postgraduate education, it is observed that the variable of their stage in postgraduate education has a "small" effect size within the overall scale ($r=.08$) and in the 1st sub-dimension ($r=.11$).

The seventh sub-problem of the study is "Do students' attitudes differ significantly according to their reasons for preferring postgraduate education?" Findings related to this sub-problem are given in Table 9.

Table 9: Kruskal Wallis Results of Students' Attitude Scores towards Postgraduate Education according to Their Reason for Preference

	Reason for Preference	N	Mean Rank.	χ^2	df	p	Effect size (η^2)	Difference Between Groups
1st Sub-dimension	Personal Development	182	337.21					
	Academic Development	240	333.16	12.249	2	.002	0.02	1-3-2-3
	Professional Development	211	281.19					
2nd Sub-dimension	Personal Development	182	321.34					
	Academic Development	240	336.43	7.072	2	.029	0.01	2-3
	Professional Development	211	291.15					
3rd Sub-dimension	Personal Development	182	312.05					
	Academic Development	240	303.36	3.994	2	.136	-	-
	Professional Development	211	336.78					
Overall Scale	Personal Development	182	334.85					
	Academic Development	240	334.21	11.609	2	.003	0.02	1-3-2-3
	Professional Development	211	282.03					

When Table 9 is examined, according to the variable of the reason for preferring the postgraduate education, it is observed that students' attitudes towards postgraduate education differ significantly in the context of overall scale ($\chi^2=11.609$, $p<.05$), 1st sub-dimension ($\chi^2=12.249$, $p<.05$) and 2nd sub-dimension ($\chi^2=7.072$, $p<.05$), but does not differ significantly in the context of the 3rd sub-dimension ($\chi^2=3,994$, $p>.05$). According to the result of the Mann-Whitney U test, which was carried out to determine between which groups the difference was, it is observed that students whose postgraduate education preference reasons are "personal development" and "academic development" have more positive attitudes than those students whose postgraduate education preference reason is "professional development" in the context of overall scale and 1st sub-dimension, and that students whose postgraduate education preference reason is "academic

development" have more positive attitudes than those whose postgraduate education preference reason is "professional development" in the context of the 2nd sub-dimension. In the study conducted by Maldonado, Kana & Akay (2023), when the literature was examined, it was seen that the participants who wanted to pursue an academic career had a positive attitude towards postgraduate education. In the research conducted by Alhas (2006), which aims to determine the perspectives of the ministry of national education teachers who are doing postgraduate education, it was seen that postgraduate education provides students with skills that include academic development. In the study conducted by Ng (2016), it was seen that nursing students found the postgraduate education they received after graduation useful to improve their academic careers. It can be stated that the findings of the present study are in parallel with the studies in the literature. On the other hand, it is observed that the eta-square values calculated to determine the effect level of reason for preference on students' attitudes towards postgraduate education indicate a "small" effect size.

RESULT

The average attitude score of more than half of the students participating in the research (60.35%) is between 71.41 and 105.00. When the distribution of the three sub-dimensions of the scale is examined, it is observed that the attitude scores in the sub-dimensions of valuing postgraduate education and giving importance to postgraduate education are high, while the average score in the sub-dimension of resistance to postgraduate education is low. According to these findings, it can be said that more than half of the students have a positive attitude towards postgraduate education.

In the sub-dimensions of valuing postgraduate education and giving importance to postgraduate education, a significant difference in the attitude towards postgraduate education in the gender variable is in favor of female students. There is no significance in any of the sub-dimensions in terms of the age variable. Compared to the students of science departments, the attitude scores of the students studying in the education departments showed a significant difference in the first two dimensions. Likewise, when the analysis is made according to the program type, there is a significance in favor of doctoral students in the first two dimensions. According to the variable of the stage they are in postgraduate education, it is seen that there is a significant difference in favor of the students in the thesis term in the context of the 1st sub-dimension, but there is no significant difference in the context of the stage they are in postgraduate education in the context of the 2nd and 3rd sub-dimensions. According to the reasons for preferring to do postgraduate education, students' attitudes towards postgraduate education showed a significant difference in the 1st and 2nd sub-dimensions, but did not show a significant difference in the 3rd sub-dimension.

In the light of the results, the recommendations of the research can be listed as follows:

A longitudinal study can be conducted to examine how the attitudes of the candidates, whose attitudes were measured before starting postgraduate education, changed when they started receiving postgraduate education.

Since the postgraduate education is found to be valuable in every variable studied in the research, it is recommended to work with different variables.

It is recommended to work with different variables, as resistance to postgraduate education creates a insignificant difference in each variable studied in the research.

Declarations

Conflict of Interest

No potential conflicts of interest were disclosed by the author(s) with respect to the research, authorship, or publication of this article.

Ethics Approval

The formal ethics approval was granted by the Ethics Committee of Gazi University. We conducted the study in accordance with the Helsinki Declaration in 1975.

Funding

No specific grant was given to this research by funding organizations in the public, commercial, or not-for-profit sectors.

Research and Publication Ethics Statement

The study was approved by the research team's university ethics committee of the Gazi University (Date and Number: 21/03/2023-E-77082166-604.01.02-618635). Hereby, we as the authors consciously assure that for the manuscript the following is fulfilled:

- This material is the authors' own original work, which has not been previously published elsewhere.
- The paper reflects the authors' own research and analysis in a truthful and complete manner.
- The results are appropriately placed in the context of prior and existing research.
- All sources used are properly disclosed.

Contribution Rates of Authors to the Article

1st author contributed 40%, 2nd author 20%, 3rd author 20%, 4th author 20%.

REFERENCES

- Akpolat, Ö. (2023). Attitudes of social studies teachers towards post-graduate education. *International Journal of Progression and Development in Education*, 1(1), 62-76. <https://doi.org/10.5281/zenodo.7651488>
- Allport, G. W. (1935). Attitudes. In *A Handbook of Social Psychology* (pp. 798–844). Clark University.
- Alhas, A. (2006). *Lisansüstü eğitim yapmakta olan milli eğitim bakanlığı öğretmenlerinin lisansüstü eğitime bakış açıları* (Ankara ili örneği), [Yayınlanmamış yüksek lisans tezi]. Gazi Üniversitesi, Ankara.
- Aslan, G. (2007). Ankara Üniversitesi Eğitim Bilimleri Enstitüsü'ne kayıtlı doktora öğrencilerinin lisansüstü öğretime ilişkin sorunları. [The Problems of Postgraduate Students Who are at Ankara University Institute of Educational Sciences Related to Postgraduate Education]. *Milli Eğitim Dergisi*, 174, 250-270.
- Bayar, Ü. (2022). *Tezsiz yüksek lisans yapan öğretmenlerin lisansüstü eğitime yönelik tutumları*. [Bilimsel Araştırma Projesi]. Pamukkale Üniversitesi. <https://gcris.pau.edu.tr/handle/11499/38985>
- Büyüköztürk, Ş. (2011). *Sosyal bilimler için veri analizi el kitabı: İstatistik, araştırma deseni, SPSS uygulamaları ve yorum* (14. baskı). Ankara: Pegem.
- Çetin, Ş. (2006). Reliability and validity study of an attitude scale of teaching profession. *Endüstriyel Sanatlar Eğitim Fakültesi Dergisi*, (18). <https://dergipark.org.tr/tr/pub/esef/issue/28803/308184>
- Çetin, Ş., Eke, K., Yılmaz Tam, H. B., Taşkın Gökçe, T. G., & Görkaş Kayabaşı, B. (2023). Development of postgraduate education attitude scale: (PEAS) validity and reliability study. *Journal of Teacher Education and Lifelong Learning*, 5(1), 295-306. <https://doi.org/10.51535/tell.1268124>.
- Coe-Nesbitt, H., Soleas, E.K., Moucessian, A., Arghash, N.S., & Kutsyuruba, B. (2021). Conceptualizing thriving: An exploration of students' perceptions of positive functioning within graduate education. *Frontiers in Education*. <https://doi.org/10.3389/feduc.2021.704135>.
- Creswell J. (2012). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th ed.). Pearson.
- Demir, M., & Beşoluk, Ş. (2017). Fen bilgisi öğretmen adaylarının lisansüstü eğitime yönelik tutumlarının incelenmesi. [Investigation of Preservice Science Teachers' Attitudes towards Graduate Education]. *Sakarya University Journal of Education*, 7(4), 769-781. <https://doi.org/10.19126/suje.408342>
- Drennan, J., & Hyde, A. (2008). Controlling response shift bias: The use of the retrospective pre-test design in the evaluation of a master's programme. *Assessment & Evaluation in Higher Education*, 33(6), 699-709.
- Özgül, E. (2020). Hemsirelik alanında lisansüstü eğitim alan öğrencilerin akademik başarı durumları ve etkileyen faktörler. [Academic Success of the Nursing Postgraduate Students and the Affecting Factors]. *Yükseköğretim ve Bilim Dergisi*, 10(3), 608-614.
- Işıkgöz, M. E. (2019). Spor bilimleri lisansüstü öğrencilerinin çeşitli değişkenlere göre lisansüstü eğitime yönelik tutumlarının incelenmesi: Batman Örneği. [Analysis on the attitudes of graduate students in sports sciences towards graduate education by different variables: c-Case of Batman]. *Beykoz Akademi Dergisi*, 7(2), 222-238. <https://doi.org/10.14514/Byk.M.26515393.2019.7/2.222-238>
- İlhan, M., Öner Sünkür, M., & Yılmaz, F. (2012). İlköğretim öğretmen adaylarının lisansüstü eğitime yönelik tutumlarının incelenmesi (Dicle Üniversitesi örneği). [Analysis of primary teacher candidates' attitudes towards postgraduate education (Dicle University Sample)] *Mehmet Akif Ersoy Üniversitesi Eğitim Fakültesi Dergisi*, 1(23), 22-42. <https://dergipark.org.tr/en/pub/maeuefd/issue/19396/206006>
- İlter, İ. (2020). Lisansüstü öğrenim gören öğretmenlerin lisansüstü eğitime yönelik tutumlarının değerlendirilmesi. [Exploring registered teachers' attitudes towards postgraduate education] *Pamukkale Üniversitesi Eğitim Fakültesi Dergisi*, 49, 263-292. <https://doi.org/10.9779/pauefd.488580>
- İnceoğlu, M. (2011) *Tutum, algı iletişim*. Ankara: Siyasal.
- İnce, M. L., & Korkusuz, F. (2006). *Lisansüstü eğitim hedeflerini geliştirmede öğrenci öğretim üyesi etkileşimi: Bir disiplinin farklı üniversitelerde ve farklı disiplinlerin bir üniversitedeki durumu proje raporu*. [Student and

faculty member interaction in developing postgraduate study objectives: A project report of a discipline at different universities and of different fields at the same university]. TUBİTAK Projesi, (104K093). <https://search.trdizin.gov.tr/tr/yayin/detay/608074/lisansustu-egitim-hedeflerini-gelistirmede-ogrenci-ogretim-uyesi-etkilesimi-bir-disiplinin-farkli-universitelerde-ve-farkli-disiplinlerin-bir-universitedeki-durumu>

- Katz, D. (1960). The functional approach to the study of attitudes. *Public Opinion Quarterly*, 24, 163-204.
- Maldonado, B., Kana, F., & Akay, S. (2023) Türkçe Eğitimi lisans ve yüksek lisans öğrencilerinin lisansüstü eğitime yönelik tutumları. [Anxiety levels of graduate students in Turkish Language Education programme about carrying out scientific research] (Ed. Fatih Kana). *Türkçe Eğitiminde Güncel Araştırmalar* içinde. Holistence Publications.
- Ng, L.C. H. (2016). *Exploring registered nurses' attitudes to postgraduate education for specialty practice in Australia*, [Unpublished dissertation]. University of Queensland Australia
- Öğretim-Özçelik, A. D., & Eke, K. (2018). Sosyal ve kültürlerarası beceriler, Öğretim- Özçelik, A.D., & M. N. Tuğluk. (Eds.). *Eğitim ve endüstride 21. Yüzyıl becerileri* içinde, Ankara: Pegem.
- Ören, F., & Karapınar, A. (2016). Öğretmen adaylarının mesleki yeterlik algılarıyla lisansüstü eğitime yönelik tutumları ve bu değişkenler arasındaki ilişki. [The perception of teacher candidates regarding their professional qualification and their attitude towards postgraduate education and the relation between these variables] *Yükseköğretim Dergisi*, 6(3), 105–116. doi:10.2399/yod.16.012
- Özbilen, F. M., & Günay, G. (2014). Analysis of the attitudes of final year students in faculty of education towards postgraduate education. *European Journal of Research on Education*, 2(2), 10-21. <https://doi.org/10.15527/ejre.201426244>
- Özsoy, S., & Özsoy, G. (2013). Eğitim araştırmalarında etki büyüklüğü raporlanması. [Effect Size Reporting in Educational Research] *İlköğretim Online*, 12(2), 334-346. <https://dergipark.org.tr/tr/pub/ilkonline/issue/8585/106644>
- Pallant, J. (2016). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS* (6th edition). Sydney: Allen & Unwin
- Spence, D. (2004). Advancing nursing practice through postgraduate education (Part two). *Nursing Praxis in New Zealand*, 20(3), 21- 30.
- Yükseköğretim Kurulu (2010). *Türkiye Yükseköğretim Yeterlilikler Çerçevesi*. <http://tyyc.yok.gov.tr/>
- Yükseköğretim Kurulu [YÖK] (2016). *Lisansüstü eğitim ve öğretim yönetmeliği*. <https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=21510&MevzuatTur=7&MevzuatTertip=5> sayfasından erişilmiştir.