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## Investigating the Academic Motivations and Academic Achievements of Pre-Service Visual Arts Teachers\*

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**Abstract:** In this study, it was aimed to investigate the academic motivations and academic achievements of pre-service visual arts teachers in the Division of Art Education in the Department of Fine Arts in the Faculty of Education in terms of some variables. The study group consisted of 127 (79 female/ 48 male) students in the division of art education. As the data collection tool, the "Academic Motivation Scale (AMS)", developed by Vallerand et al. and then, translated into Turkish for university students by Karagüven, was used to find out the academic motivations of students, and the personal information form was used to get the personal information of students in the study. In the research, in which the relational screening method was used, the descriptive analysis was applied to determine the motivation levels of pre-service visual arts teachers; independent sampling t-test to compare their average scores according to gender; one-way variance analysis to test according to the class variable, and Pearson Correlation test to determine the relationship between their academic motivation and academic achievement. The findings of the study show that the intrinsic and extrinsic motivations of pre-service visual arts teachers are at a good level. It was found that the amotivation levels of pre-service visual arts teachers were at a low level. As the average scores according to gender were investigated, the meaningful difference was encountered in favour of female participants for intrinsic motivations. It was found that the intrinsic motivations of females related to the achievement were higher. An increase, from 1st year to 4th years students, was observed in terms of the academic motivation levels of pre-service visual arts teachers according to the class variable. However, no meaningful difference was encountered between the average scores of the students' academic motivations according to the class variable. It was found that the relationship between academic motivation and academic achievement was low.

**Keywords:** Art education, motivation, academic achievement, teacher training.

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### Introduction

Motivation has an undeniable significance in the education process. It has an important place in education as in all areas of life. Motivation is the power that transforms the individual towards fulfilling a certain behaviour. Morgan (1995) defined motivation as behaviours that acted in line with needs and directed towards their goals. Motivation is a general concept that includes general needs, human needs and impulses. In this case; "The motives stimulate the organism, activate it and direct the behaviour of the organism to a specific purpose. When these characteristics are observed in the behaviour of the organism, it is considered that the organism is motivated (Cucelöglu 1999).

It is crucial to increase the motivation of individuals in education. Glynn and Koballa (2006) express motivation as an internal situation that activates, directs and maintains students' behaviours. Oncu (2000) defined 'student motivation' as the students' desire to participate in the learning process. Therefore, student motivation is one of the most important parts of the educational process. Learning Motivation is defined as, "in essence, whether it is interesting or not, that the academic homework is meaningful, valuable and useful in terms of learning" (Ames, 1990). Student motivation and learning motivation are complementary elements of education.

As in all other fields, motivation plays an important role in art education. The student's self-confidence is necessary for his / her interpretation skills and product development. In this case, it should be ensured to increase her/his motivation level and to find new opportunities to express her/ himself. Yılmaz, (2010) explained the differences of a

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motivated student from non-motivated student in artistic teaching and learning processes as: interested, pays attention, spends time on the activity, has high concentration, struggles with the difficulties s/he encounters in activities, solves problems, is determined, insists to conclude, does not apply to imitation and copy, produces original products, uses imagination, richness of images is observed in her/his works, uses various approaches. Here, the person, who teaches the course, has great responsibilities. S/he should also have high motivation. Teacher's motivation is as important as the student and learning motivation in education. Because a motivated teacher in the lesson allows the student to be motivated and studied more efficiently. Studies were conducted to determine the learning motivation of the students. These studies were usually conducted according to the class, department or gender variable and primarily based on motivation and achievement, motivation and performance measurement (Peklaj & Levpušček, 2006; Ozgungor & Kapikiran, 2008; Eymur & Geban, 2011; 2011; Abootorabi, 2011; Singh, 2011; Amrai Amrai, Motlagh, Zalani, & Parhon, 2011; Sahin & Cakar, 2011; Kruskar et al., 2012; Yazici & Altun, 2013; Uyulgan & Akkuzu, 2014; Wood et al., 2014; Kucukosmanoglu, 2015; Cetin, 2015; Yilmaz, Taskesen & Taskesen, 2016; Bektas & Karagoz, 2017). On the other hand, studies of motivation and interaction are also available (Alemdag, Oncu, Yilmaz, 2014; Karatas, 2011; Ekinci, 2017).

In this present study, to determine the relationship between the academic motivations and academic achievements of pre-service visual arts teachers in the division of art education, these following research questions related to the sub-purposes were asked.

Is there a significant difference between the mean scores of academic motivation according to the gender variable of pre-service visual arts teachers?

Is there a significant difference between the mean scores in the Sub-dimensions of the Academic Motivation Scale of the pre-service visual arts teacher according to the gender variable?

Is there a significant difference between the mean scores in the Academic Motivation Scale of the pre-service visual arts teacher according to the variable of class level?

Is there a significant difference between the mean scores in the Sub-dimensions of the Academic Motivation Scale of the pre-service visual arts teacher according to the variable of class level?

Is there a significant relationship between the academic achievements and academic motivations of pre-service visual arts teachers?

## Methodology

### *Research Goal*

This study, which was aimed to investigate the relationship between the academic motivation levels and academic achievements of pre-service visual arts teachers who were under education in the division of art education in the faculty of education in a medium level province in the Eastern Anatolia Region of Turkey, and to determine the relationship between the academic motivations and academic achievements according to the variables such as gender and grade level, is appropriate to the relational screening model. Relational scanning models are the research models aiming to determine the existence and degree of change between two or more variables (Karasar, 2009).

### *Sample and Data Collection*

The study group consisted of 127 (79 female/ 48 male) students in the division of art education in a medium province located in the Eastern Anatolia Region of Turkey in the 2018-2019 educational year. Two measurement tools were applied for the collection of necessary data for this research. One of these was personal information form, other was the "Academic Motivation Scale (AMS)", developed by Vallerand et al. (1992) and then, translated into Turkish for university students by Karagüven (2012) was used to determine academic motivations of students. As it is known, the Academic Motivation Scale consists of Intrinsic Motivation, Extrinsic Motivation and Amotivation dimensions. In addition, Intrinsic Motivation consists of the sub-dimensions of Knowledge Related Intrinsic Motivation (KRIM) + Accomplishment Related Intrinsic Motivation (ARIM) + Stimulation Related Intrinsic Motivation (SRIM); and Extrinsic Motivation consists of the sub-dimensions as Identified Extrinsic Motivation (IEM) + Introjected Extrinsic Motivation (INEM) and Extrinsic Motivation – External Regulation (EM-ER). The Cronbach Alpha value related to the whole test (0.87) showed that the overall internal consistency and similarity of the scale were satisfactory. Karagüven, 2012, s. 2607). In this study, Cronbach Alpha reliability coefficient of the scale was found as .80. In addition, the general arithmetic average scores of the students were gathered from their transcripts.

### *Analyzing of Data*

The descriptive statistics related to the variables, correlation and variance analyses were tested with the SPSS 22.00 program at the significance level of .05. The motivation scores of the students were found applying the scores from the "Academic Motivation Scale". In the study, among the parametric tests, the independent samplings t-test (for gender variable) and One-Way ANOVA (for class level variable) were used with the assumption that the data provided

normality. Besides, Pearson correlation coefficient was used to test the correlation between academic motivation and academic achievement scores in the research.

### Findings / Results

*Findings related to the mean scores of pre-service visual arts teachers in the Academic Motivation Scale (IM, EM, AMOT, AM):*

*Table 1. Descriptive statistics related to determining the motivation levels of pre-service teachers*

Variable	N	Min	Max	$\bar{x}$	S
KRIM	127	7	28	23,21	3,839
ARIM	127	8	28	19,54	4,613
SRIM	127	9	28	20,00	4,754
IEM	127	7	28	23,73	4,299
INEM	127	7	28	19,35	5,224
EM-ER	127	4	28	22,27	4,896
MTVSYSLK	127	4	28	10,15	6,258
<b>IM</b>	<b>127</b>	<b>25</b>	<b>82</b>	<b>62,76</b>	<b>10,737</b>
<b>EM</b>	<b>127</b>	<b>19</b>	<b>82</b>	<b>65,35</b>	<b>11,493</b>
<b>AM</b>	<b>127</b>	<b>54</b>	<b>162</b>	<b>128,11</b>	<b>20,194</b>

Academic Motivation consists of the sum of Intrinsic and Extrinsic Motivation dimensions. Except this, amotivation dimension is scored independently from these dimensions. As the Intrinsic Motivation dimension in Table 1 is considered, although the highest score from the scale is 84, the mean score is 62,76. This score corresponds to 66% of the full score of Intrinsic Motivation. This score indicates that the pre-service Visual Arts teachers have a good level of Internal Motivation. As it is considered from the dimension of Extrinsic Motivation, it is seen that the full score is 84, therefore, the Extrinsic Motivation score (65.35) corresponds to approximately 73%. We can say that the Extrinsic Motivations of the pre-service visual arts teachers are at a good level. Besides, as the highest score that can be taken from the amotivation dimension is 28 is taken into consideration, it can be observed that the score that can be gotten from this sub-dimension (10,15) corresponds to 25 %. This ration shows that the amotivation levels of pre-service visual arts teachers are at a low level. As it is taken into account that the Academic Motivation Scale consists of the Intrinsic and Extrinsic Motivation scores, the highest score that can be taken from the Academic Motivation dimension is 168. In the Table, the score (128,11) corresponds to 68% of the total score. As it is understood from the Academic Motivation score, the Academic Motivations of the pre-service visual arts teachers are at a good level. According to the table, the sub-dimensions with lowest mean scores are the Knowledge Related Intrinsic Motivation and Introjected Extrinsic Motivation. As it is considered that the highest score that can be taken from these sub-dimensions is 28, it can be noticed that the mean score from these sub-dimensions corresponds to 57% of the full score.

*Findings related to the difference between the scores of the pre-service visual arts teachers in the Academic Motivation Scale (IM, EM, AMOT, AM) according to the Gender Variable and their average scores:*

The independent sampling t-test results of the average scores of the pre-service visual arts teachers' in the Academic Motivations Scale is shown in Table 2.

*Table 2. The Independent Sampling t-test Results of the Average Scores of the Pre-service Visual Arts Teachers' in the Academic Motivations Scale according to the Gender Variable*

Variable		N	$\bar{x}$	S	df	t	p
AMOTIVATION	Female	79	9,35	6,114	125	-1,855	0,066
	Male	48	11,46	6,334			
INTRINSIC MOTIVATION	Female	79	64,24	10,248	125	2,023	0,045
	Male	48	60,31	11,178			
EXTRINSIC MOTIVATION	Female	79	66,47	11,124	125	1,407	0,162
	Male	48	63,52	11,968			
ACADEMIC MOTIVATION	Female	79	130,71	19,301	125	1,879	0,063
	Male	48	123,83	21,096			

As the average scores according to gender in Table 2 are analysed, it is seen that meaningful difference [ $t(125) = 2.023$ ,  $p < .05$ ] was found in favour of female students in Intrinsic Motivation according to the paired sample t-test, which was applied to determine the difference between the average scores from the Academic Motivations Scale. While the Intrinsic Motivations of females related to the achievement is  $\bar{x} = 64,24$ , this score is  $\bar{x} = 60.31$  in males.

*Findings Related to the difference between the average scores of the Sub-dimensions of Academic Motivation Scale (KRIM, ARIM, SRIM, IEM, INEM, EM-ER) According to the Gender Variable of Pre-service visual arts teachers*

Independent samplings t-test results of the average scores of the sub-dimensions of Academic Motivation Scale according to the gender of the pre-service visual arts teachers are shown in Table 3.

*Table 3. Independent samplings t-test results of the average scores of the sub-dimensions of Academic Motivation Scale according to the gender of the pre-service visual arts teachers*

Variable		N	$\bar{x}$	S	df	t	p
KRIM	Female	79	23,57	3,54	125	1,349	0,18
	Male	48	22,63	4,25			
ARIM	Female	79	20,34	4,44	125	2,557	0,012
	Male	48	18,23	4,62			
SRIM	Female	79	20,33	4,71	125	1,001	0,319
	Male	48	19,46	4,82			
IEM	Female	79	24,22	4,25	125	1,635	0,105
	Male	48	22,94	4,29			
INEM	Female	79	19,77	5,18	125	1,158	0,249
	Male	48	18,67	5,26			
EM-ER	Female	79	22,48	4,64	125	0,628	0,531
	Male	48	21,92	5,31			

In Table 3, in which the average score difference from the Academic Motivation Scale is compared, the comparisons of the sub-dimension average score to see how the difference in the intrinsic motivation in the sub-dimensions occurred in favour of females, are given in Table 3. According to this, as the independent sample t-test calculated in order to find out the difference between the average scores of the Sub-dimensions of Academic Motivation Scale is considered, it is seen that meaningful difference [ $t(125) = 2.557$   $p < .05$ ] is noticed in favour of female students in the Achievement Related Intrinsic Motivation. While the Accomplishment Related Intrinsic Motivation in favour of female students is  $\bar{x} = 20,34$ , this value is  $\bar{x} = 18.23$  in male students. In other words, the Accomplishment Related Intrinsic Motivation of the female students is higher compared with the male students.

*Findings related to the difference between the average scores of the Academic Motivation Scale (IM, EM, AMOT, and AM) according to Grade Variable of the pre-service visual arts teachers:*

The results of One Way Variance Analysis (ANOVA) test results calculated to determine the difference between the average scores of the pre-service visual arts teachers from the Academic Motivation Scale according to the class level variable are shown in Table 4.

*Table 4. The results of One Way Variance Analysis (ANOVA) test results calculated to determine the difference between the mean scores of the pre-service visual arts teachers from the Academic Motivation Scale according to class level variable*

Variable	Grade	N	$\bar{x}$	S	df	F	p
Amotivation	1st grade	36	10,39	7,369	3-123	0,556	0,645
	2nd grade	31	9,16	5,336			
	3rd grade	32	9,91	5,716			
	4th grade	28	11,21	6,385			
Intrinsic Motivation	1st grade	36	61,81	11,62	3-123	1,311	0,274
	2nd grade	31	63,16	10,545			
	3rd grade	32	60,69	10,584			
	4th grade	28	65,89	9,7			
Extrinsic Motivation	1st grade	36	64,44	14,514	3-123	0,288	0,834
	2nd grade	31	64,65	10,778			
	3rd grade	32	65,72	9,629			
	4th grade	28	66,89	10,174			
Academic Motivation	1st grade	36	126,25	24,122	3-123	0,675	0,569
	2nd grade	31	127,81	19,764			
	3rd grade	32	126,41	16,917			
	4th grade	28	132,79	18,853			

As the average scores of the Academic Motivation Scale (Intrinsic Motivation, Extrinsic Motivation, Amotivation, and Academic Motivation) of the pre-service visual arts teachers according to the class variable shown in Table 4 are

analysed, it is noticed that an increase from 1st class to the 4th class is noticed. Anxiety of the students to increase their overall weighted score averages towards the last class may be effective in this increase, however, according to the one way ANOVA test results, meaningful difference does not exist between the Academic Motivation average scores of the students according to their class level [  $F(3-123)=.67$   $p>.05$ ].

*Findings related to the difference between the mean scores of the pre-service visual arts teachers in the Academic Motivation Scale's Sub-dimensions (KRIM, ARIM, SRIM, IEM, INEM, EM-ER) according to Grade Level Variable:*

The one-way variance analysis (ANOVA) test results, calculated to determine the difference between the average scores of the pre-service visual arts teachers in the Academic Motivations Scale's Sub-dimensions according to the class level variable, are shown in Table 5.

Table 5. *The one-way variance analysis (ANOVA) test results, calculated to determine the difference between the average scores of the pre-service visual arts teachers in the Academic Motivations Scale's Sub-dimensions according to the class level variable*

Variable	Class	N	$\bar{x}$	S	df	F	p
ARIM	1st class	36	22,58	21,71	3-123	1,075	0,362
	2nd class	31	23,13	16,52			
	3rd class	32	23,06	24,68			
	4th class	28	24,29	19,57			
KRIM	1st class	36	109,52	19,47	3-123	0,561	0,642
	2nd class	31	107,69	20			
	3rd class	32	99,47	18,72			
	4th class	28	102,92	20,07			
SRIM	1st class	36	109,52	19,75	3-123	1,594	0,194
	2nd class	31	107,69	20,03			
	3rd class	32	99,47	18,91			
	4th class	28	102,92	21,54			
IEM	1st class	36	109,52	23,81	3-123	0,299	0,826
	2nd class	31	107,69	23,13			
	3rd class	32	99,47	24,13			
	4th class	28	102,92	23,86			
INEM	1st class	36	109,52	19,31	3-123	0,602	0,615
	2nd class	31	107,69	20,13			
	3rd class	32	99,47	18,41			
	4th class	28	102,92	19,64			
EM-ER	1st class	36	109,52	21,33	3-123	1,666	0,178
	2nd class	31	107,69	21,39			
	3rd class	32	99,47	23,19			
	4th class	28	102,92	23,39			

As the average scores of the pre-service visual arts teachers' Academic Motivations Scale (Intrinsic Motivation, Extrinsic Motivation, Amotivation, Academic Motivation) average scores according to the class level variable in Table 5 were compared, no meaningful difference was encountered. However, in Table 4, the average score differences in the Sub-dimensions of the Academic Motivations Scale of the students according to the class level variable were analysed. According to the one way ANOVA test results, no meaningful difference was found between the average scores of the students in the Sub-dimensions of the Academic Motivations Scale according to the class level variable was encountered. As Table 5 is analysed, the highest average difference was found in the Extrinsic Motivation- External Regulation between the classes 1-2 and 3-4; however, the difference is not meaningful [  $F(3-123)=1.66$   $p>.05$ ].

*Findings related to the relationship between the mean scores of the pre-service visual arts teachers between their Academic Achievements and Academic Motivation Scale (IM, EM, AMOT, AM, KRIM, ARIM, SRIM, IEM, INEM, EM, ER):*

The Pearson Correlation test results related to the relationship between the average scores of the pre-service visual arts teachers in the Academic Motivation Scale and their academic achievements are shown in Table 6.

Table 6. The Pearson Correlation test coefficients related to the relationship between the average scores of the pre-service visual arts teachers in the Academic Motivation Scale and their academic achievements

	GANO	KRIM	ARIM	SRIM	IEM	INEM	EM-ER	AMOT	IM	DM	AM
<b>GANO</b>	1	0,083	0,164	0,1	0,191	0,051	0,167	-0,009	0,144	0,166	0,171
p		0,356	0,065	0,264	<b>0,032</b>	0,567	0,06	0,923	0,106	0,062	0,054
n		127	127	127	127	127	127	127	127	127	127
<b>KRIM</b>		1	<b>0,425</b>	<b>0,47</b>	<b>0,56</b>	<b>0,494</b>	<b>0,688</b>	<b>-0,255</b>	<b>0,749</b>	<b>0,727</b>	<b>0,812</b>
p			0	0	0	0	0	0,004	0	0	0
n			127	127	127	127	127	127	127	127	127
<b>ARIM</b>			1	<b>0,557</b>	<b>0,397</b>	<b>0,61</b>	<b>0,285</b>	-0,114	<b>0,828</b>	<b>0,547</b>	<b>0,752</b>
p				0	0	0	0,001	0,202	0	0	0
n				127	127	127	127	127	127	127	127
<b>SRIM</b>				1	<b>0,269</b>	<b>0,444</b>	0,111	-0,068	<b>0,85</b>	<b>0,35</b>	<b>0,651</b>
p					0,002	0	0,214	0,449	0	0	0
n					127	127	127	127	127	127	127
<b>IEM</b>					1	<b>0,347</b>	<b>0,566</b>	<b>-0,462</b>	<b>0,49</b>	<b>0,773</b>	<b>0,701</b>
p						0	0	0	0	0	0
n						127	127	127	127	127	127
<b>INEM</b>						1	<b>0,447</b>	<b>-0,001</b>	<b>0,636</b>	<b>0,775</b>	<b>0,779</b>
p							0	0,992	0	0	0
n							127	127	127	127	127
<b>EM-ER</b>							1	<b>-0,203</b>	<b>0,417</b>	<b>0,841</b>	<b>0,701</b>
p								0,022	0	0	0
n								127	127	127	127
<b>AMOT</b>								1	<b>-0,17</b>	<b>-0,26</b>	<b>-0,238</b>
p									0,056	0,003	0,007
n									127	127	127
<b>IM</b>									1	<b>0,65</b>	<b>0,902</b>
p										0	0
n										127	127
<b>EM</b>										1	<b>0,915</b>
p											0
n											127

The relationship between the Academic Motivations and its Sub-dimensions and General Academic Mean Scores are analysed in Table 6. As it is analysed in the test where the positive relationship between the sub-dimensions of the scale is predicted normally, which dimensions do you find the highest relationships?, it is seen that the highest positive relationship is between the Academic Motivation and Extrinsic and intrinsic motivations (.902 , .915). If we analyse from the sub-dimensions with positively highest relationship to the moderate or low sub-dimensions of the Academic Motivations, the Knowledge Related Intrinsic Motivation shows the highest relationship (.812), it is followed by the Introjected Extrinsic Motivation (.779), Accomplishment Related Intrinsic Motivation(.752), Identified Extrinsic Motivation and Extrinsic Motivation - External Regulation(.701), Stimulation Related Intrinsic Motivation (.651). The most striking finding in Table 6 is the low relationship between Academic Motivation and GANO. According to the table, it is a significant finding that there is a meaningful relationship between the sub-dimensions of the academic motivation scale and GANO. In the study, it was found that the relationship between non-motivation and some of the sub-dimensions of motivation was not significant.

### Discussion and Conclusion

As the findings of the study are taken into consideration, it can be expressed that both the intrinsic motivations and the extrinsic motivations of the pre-service visual arts teachers are at a good level. Also, findings show that amotivation levels of the pre-service visual arts teachers are at a low level. If it is considered that the Academic Score Scale consists of the Intrinsic and Extrinsic Motivation scores, as it is understood from the Academic Motivation score, the Academic Motivation levels of the pre-service visual arts teachers are at a good level. According to the findings, the sub-dimensions, which have the lowest average scores, are the Accomplishment Related Intrinsic Motivation and the Introjected Extrinsic Motivation. In the study by Gomleksiz and Serhatlioglu ( 2013 ) found that the Knowledge Related Intrinsic Motivations, Identified Extrinsic Motivation and Extrinsic Motivation - External Regulation levels of the pre-service teachers were at a high level. Besides, it was found that Achievement Related Intrinsic Motivation, Stimulation Related Intrinsic Motivation, Introjected Extrinsic Motivation of the pre-service teachers were at a moderate level and their amotivation levels were at a low level. In the study by Altinkurt, Yilmaz and Erol (2014), on the motivation of

pedagogical formation students towards the teaching profession, it was found that the students' motivation towards the teaching profession was high. Kucukosmanoglu (2015), in the research aimed to determine the academic motivation levels of pre-service music teachers, the Knowledge Related Intrinsic Motivation, Achievement Related Intrinsic Motivation, Stimulation Related Intrinsic Motivation, Identified Extrinsic Motivation, Introjected Extrinsic motivations and extrinsic motivation- External Regulation levels of the pre-service teachers were at a high level; on the other hand, the amotivation dimensions were at low level. In general, the findings demonstrate the similarities with our present study.

According to the findings of the research, the mean score of the pre-service visual arts teachers was analysed, it is observed that a significant difference in the Intrinsic Motivation was noticed in favour of the female pre-service teachers according to the Academic Motivation Scale. It is determined with this finding that females have higher scores of Achievement-Related Intrinsic Motivation compared with the males. In another finding of the research, according to the sub-dimension average score compare to find out how the difference emerged in favour of females in the Intrinsic Motivation, a meaningful difference only occurred in Accomplishment Related Intrinsic Motivation in favour of females. In other words, the Achievement Related Intrinsic Motivations of the female pre-service teachers are higher than male pre-service teachers. In the similar research conducted by Alemdag, Oncu and Yilmaz (2014), it was found that the academic motivations of the pre-service physical education teachers differ in favour of the female pre-service teachers. Also, similarly, in the research conducted by Eymur and Geban (2011) related to the motivations and academic achievements of the pre-service teachers, it was found that the motivations of the female pre-service teachers were higher compared with the male pre-service teachers. In the same research, it was also found that, although the motivations of the female pre-service teachers had higher motivations compared with the male pre-service teachers in the sub-dimensions of the motivation, the meaningful difference occurred in the level of stimulation related intrinsic motivation. In the study by Gomleksiz and Serhatlioglu (2013), it was found that the levels of academic motivation of the pre-service teachers differed according to their gender, and women's knowledge related intrinsic motivation and stimulation related intrinsic motivations, extrinsic motivation-External Regulation and Introjected motivation levels were higher than male pre-service teachers. At the same time, the amotivation dimensions of the males were determined to be higher than females. In the study by Vallerand et al., (1992), differences occurred in favour of the female pre-service teachers. In the research conducted by Kucukosmanoglu (2015), it was determined that there were differences in academic motivation levels according to gender. While the knowledge related intrinsic motivations, stimulation related intrinsic motivations and Introjected Extrinsic motivation levels of the males were determined to be higher than females, the extrinsic motivation-External Regulation levels of the females were higher than males. No meaningful difference was encountered between the achievements related intrinsic motivation, identified extrinsic motivations and amotivation levels of the pre-service music teachers. On the other hand, in the study by Tekin, Tasgin, Yildiz & Lok (2009), in which the motivations of pre-service physical education teachers related to the teaching profession were investigated, it was determined that the academic motivations of the male pre-service teachers were higher. In the study by Bektas & Karagoz (2017) called the Investigation of Pre-service Teachers' Attitudes and Motivation Levels in Terms of Some Variables, no difference was encountered according to gender. Considering similar studies on the gender variable of the study, there are also studies with different results, although they mostly support our research.

According to the study by Alemdag, Oncu and Yilmaz (2014), which is among the similar studies, it was found that the academic motivation levels of the students demonstrated a meaningful difference in terms of the class level variable. In the study prepared by Eymur and Geban, (2011), the academic motivation levels of the pre-service chemistry teachers in the first class were found to be higher than the pre-service teachers in the higher class levels. In this study, in which the effect of the class variable on the academic motivation, the negative motivation scores decreased to the 4th class; also, it was determined that the academic motivation scores of the 1st class students were higher compared with the academic motivation scores of the students in other class levels. In the study by Gencay and Gencay (2007), similarly, the motivation levels (extrinsic motivation) of the students in the 1st class was determined to be high. On the other hand, in the study by Tekin, Tasgin, Yildiz & Lok (2009) (2009) the motivation levels of the pre-service teachers in the 4th class were determined to be higher compared with the others. In the study conducted by Gomleksiz and Serhatlioglu (2013), as the motivations of the pre-service teachers according to the class levels were taken into consideration, no significant difference was encountered in the stimulation related intrinsic motivation levels, differences were encountered in the levels of knowledge related to intrinsic motivation, achievement related to intrinsic motivation, extrinsic motivation-extrinsic arrangement, Identified extrinsic motivation, Introjected Extrinsic, amotivation levels.

In this present research, the academic motivation levels of the pre-service teachers in the first class were determined to be higher compared with the 4th class pre-service teachers. In the research by Kucukosmanoglu (2015), it was determined that the academic motivation levels of the pre-service music teachers differed according to the class level variable. It was found that Accomplishment Related Intrinsic Motivation and Identified extrinsic motivation dimensions of the pre-service last class teachers were lower than the pre-service teachers in other classes; however, the dimension of amotivation was found to be higher.

In the research by Gursimsek (2002) found that the pre-service teachers in the first class had higher motivation levels compared with the pre-service teachers in other class levels. According to the results of the study by Uyulgan and Akkuzu (2014), as the class levels of the pre-service teachers' increase, a decrease was determined in their academic intrinsic motivations. It is noticed that similar studies support our study in general.

In another finding, the relationship between the Academic Motivation and the sub-dimensions of and General Academic Score Average was investigated in general. The highest positive relationship was realised to have occurred between academic motivation and extrinsic and intrinsic motivation. As we move to the sub-dimensions, which have a positive high relationship of the Academic Motivation to the sub-dimensions of moderate and low, the highest relationship occurs in Knowledge Related Intrinsic Motivation. This is followed orderly by the Introjected Extrinsic Motivation, Achievement Related Intrinsic Motivation, Identified Extrinsic Motivation and Extrinsic Motivation- Extrinsic Arrangement, Stimulation Related Intrinsic Motivation. However, the relationship between Academic Motivation and GANO was found to be low. This can only be attributed to the fact that students do not remember GANO scores correctly during the period of the scale. According to the table, The fact that the relationship between the sub-dimensions of the academic motivation scale and GANO was not significant was an important finding. In the study, it was found that the relationship between amotivation and some of the sub-dimensions of motivation was not significant. In the study by Yilmaz, Taskesen and Taskesen (2016), it was found that there is no significant relationship between academic achievement and academic motivation. In the research by Uyulgan and Akkuzu (2014), according to the findings of the study conducted to find out the relationship between the academic average scores and academic intrinsic motivations of the pre-service teachers who were under education in the faculty of education, the pre-service teachers who had low average scores had the low academic intrinsic motivation values gathered from the scale; on the other hand, the pre-service teachers with high academic average scores had high academic intrinsic motivation values compared with others. In the study by Eymur and Geban (2011), a meaningful relationship was encountered only between academic achievement and intrinsic motivation ( knowledge and stimulation related). Similar to these results, in the study by Karsenti and Thibert ( 1994), it was referred that students with high average scores would have high academic motivations.

The findings of this research have the characteristics to contribute to the researches on motivation in the field of visual arts as it put forth the academic motivations of the pre-service visual arts teachers with its sub-dimensions.

### Recommendations

- It is significant to create learning environments contributing to the motivation levels of pre-service teachers positively. For this reason, it is of great importance to provide comfortable and effective workshop environments that are the most significant needs for the visual arts pre-service teachers in the faculties of education and the educational activities to increase the motivation.
- The social environment of the person can affect the motivation level. In this context, enabling the pre-service teachers to be in social environments and work in groups will contribute to their motivations.
- Qualitative studies that will comprehensively demonstrate the relationship between academic achievement and motivation can be conducted. In addition, it is thought that planning and conducting studies that will increase the academic motivations and academic achievement levels of the students will contribute to the literature.
- That the difference observed in the findings of the research in the dimension of the academic motivation and the findings of similar studies demonstrate difference especially in terms of the gender variables show the necessity for more comprehensive studies.

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