

## Research for Motivational Persistence Levels of Prospective Teachers in Terms of Age, Gender and Teaching Branch Variables

Selin Cenberci<sup>1</sup>, Adiviye Beyhan<sup>2</sup>

<sup>1</sup>Konya NE. University, A.K. Education Faculty, Secondary School Mathematics Teaching Program Meram, Konya, Turkey

<sup>2</sup>Selçuk University, Faculty of Art and Design, Department of Hand Crafts Design and Production, Selçuklu, Konya, Turkey

Correspondence: Selin Cenberci, Konya NE. University, A.K. Education Faculty, Secondary School Mathematics Teaching Program Meram, Konya, Turkey.

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### Abstract

The meaning of motivation has been much discussed and theorized in educational psychology. According to the Keller (2006), motivation is measured by the amount of effort the student makes in order to achieve the instructional goal. In addition to this, Sing (2011) clarified motivation is one of the most important prerequisites for learning also persistence of motivation is a key for achievement (Ushioda 2015). Persistence of motivation is as important as having motivation (Constantin, Holman and Hojbota 2011). Motivational persistence as core component of the strength of goal striving (Constantin 2008). Teaching is a profession that requires motivational persistence. Motivational persistence level of prospective teachers and development of it are important in their education term. In this research motivational persistence levels of future teachers are examined according to the different variables. In this research descriptive model was used aiming to bring about the different variables effect on the motivational persistence. In 2015-2016 Education Year Spring Term in NEU Education and Art & Design Faculty 250 different students in different departments participated in this research. Motivational persistence scale was developed by Constantin et al. (2011) and adapted to Turkish by Sarıçam et al. (2015). And also in research these techniques are used to analyze data's; frequency, percentage average, standard deviation and t test. The data's gathered as a result of measurements during research was done in computer by SPSS program. We concluded that students' motivational persistence level score mean is good level. Motivational persistence score mean of girls, art of design students, 23-24 age group are the highest were relatively higher than other groups.

**Keywords:** motivation, motivational persistence, performance

### 1. Introduction

Motivation is an important item in the events of teaching and learning. Motivation word is defined "movere" in Latin i.e. it comes from the word "movement" (Terzioglu et al. 2012). In the simplest terms, motivation is an intrinsic case which was caused of human behavior and was given direction to behavior (Ertem 2006). Motivation is the most fundamental item to learn Schunk et al. (2002) defined the motivation "it has demonstrated the individual efforts, insistence, skill method which was fulfill a job.

Chun et al. (2005) said that motivation is a potency to ensure that an individual engaged in an activity. According to Guay et al. (2010), behavior which is the foundation of human behavior creates motive mobilizes people. In the literature: motive is a power which conscious or unconscious causes of behavior occurring and continues the behavior. At the same time, it is defined as impulse pushing individuals urge to engage in purposeful behavior (Gredler, 2001).

Motivation is not only refers to the magnitude and direction of behavior, but also refers to the choices people make as to what experiences or goals they will approach or avoid. Motivation is designed on the three assumptions. 1) People can be motivated by influence of external events. 2) Motivation is related to performance which is end or not to end. 3) Measurably influence motivation can predictable by using systematic design and implementation (Keller 2006).

*'Motivation provides an important foundation to complete cognitive behavior, such as planning, organization, decision*

–making, learning and assessments” (Pintrich et al. 1996). Intrinsic motivation would encompass not only personal interest, but also incorporate the feelings of autonomy and self-determination.

Motivation is defined intrinsic and extrinsic motivation. Intrinsic motivation reflects behavior that is undertaken of its own sake, enjoyment and interest with high degree of perceived internal control. Unlike to intrinsic motivation, extrinsic motivation focus on activation (Deci et al. 2000).

Intrinsic motivation is desirable that successful on his own, at his own request (Ağca, et al. 2008). Extrinsic motivation is to desire to be successful which was passed a movement of the factors out on his own (Önen et al. 2005).

As educational psychology, in organizational psychology; In case of an individual fulfilling specific function with pleasure by way of forces getting internal and external factors, we can talk about motivation (Barutçugil 2004). But, determination was defined as volunteer continuity on goal-oriented activity against obstacles and discouragements (Peterson et al. 2004). Determined people have never tired. Determined people can behave more flexible and tolerant and also they can deal with problems with analytical views (Willis 2008). At this point to continue of motivation needs determination.

There are different motivations for different needs. Induced motivation formats behavior and allows maintaining the continuation of the behavior. As all indicators, motivational persistence can be called main variable for achieving the objectives and success (Pintrich 2003). In addition, educational psychologists are also mentioned that motivational persistence is essential for the meaningful learning. Motivational persistence is determined by the intensity of the specific needs, such as emotional and Physiological needs (Önen et al. 2005). Those needs vary from person to person. If individual needs are not met or can't be fulfilled, the imbalance occurs in individuals body. This imbalance position improves to the balance position through motivational persistence. From this point of view, it can be said, motivational persistence is a self-regulation mechanism. It was used to measure a lot of motivation scale. Since motivational persistence is different form the motivation to determine the motivational level of persistence was used which was developed by Constantin et al. (2011). This scale adapted to Turkish by Saricam et al. (2015) and the validity and reliability study was conducted by them.

There have been lots of studies about the motivation or persistence, but there is not too much studies about the motivational persistence. For involving students to the learning process actively, he/she is willing to participate in this process and must be pursued his/her motivation with persistence. Motivation is the most important factor for success and individuals motivation, persistence of it is more important than others (Özsoy 2005).

Therefore, it is found important to examine the motivation levels of students in different Universities, different departments and to identify meaningful differences according to their gender, ages, department types. For this purpose, a problem sentence came out; “Which level is the University students’ motivational persistence? “And also, undermentioned sub-question sentences were tried to answer:

- 1- What is the level of students’ motivational persistence points at NEU and SU Universities?
- 2- Is there meaningful difference among the motivational persistence point means of students according to gender factor?
- 3- Is there meaningful difference among the motivational persistence point means of students according to age factor?
- 4- Is there meaningful difference among the motivational persistence point means of NEU and SU students according to teaching branch factor?

## **2. Methodology**

### *2.1 Method of the Study*

The purpose of this study is to determine measure of motivational persistence. In this research since the situation fix exactly, the descriptive method was used in addition to this general hatching model one of the hatching models was used. The hatching models are research approaches aiming to depict a situation exactly it is (Sönmez et al. 2011). Also the motivational persistence points of students were compared according to gender, age and department factors.

### *2.2 Population and Sample*

The population of this research consists of different department last class students in NEU Education Faculty and SU Art and Design Faculty in spring term of 2015-2016 academic years. Because it is impossible to reach the whole population, sampling method was used and the sample was taken by students with typical case sampling. 286 students participated in this sample, because 4 ones of 290 students did not fill the scale exactly.

### 2.3 Data collection Tool

In this research, motivational persistence scale was used which was developed by Constantin, et al. (2011) and this scale adapted to Turkish by Sarıçam and et al. (2015). The correlation between the original and Turkish version of the scale was .88. Exploratory factor analysis showed that KMO measure of sampling adequacy of .87, and Bartlett Sphericity test  $\chi^2= 611.798$  ( $p<.001$ ,  $df=78$ ). Confirmatory factor analyses demonstrated that 13 items yielded three factor as original form and that the three-dimensional model was well fit ( $\chi^2=141.85$ ,  $df= 60$ ,  $RMSEA=.058$ ,  $CFI=.85$ ,  $GFI=.95$ ,  $AGFI=.92$ ,  $SRMR=.057$ ). Factor loadings ranged from .30 to .61. Cronbach alpha coefficient was found as .69 for whole scale, .72 .70, .71 for subscales. This scale consists of 13 items. It has been graded as five- point Likert type scale (1-strongly disagree, 2-disagree, 3-neutral, 4-agree, 5-strongly agree).

### 2.4 The Analysis of the Data

The scale has five options. The interval coefficient for four intervals in fivefold scale were (4/5) 0,80. These are; I strongly disagree (1-1,79), I disagree (1,80-2,59), I am neutral (2,60-3,39), I agree (3,40-4,19), I strongly agree (4,20-5). In this research frequency, percentage average, standard deviation and t test were used to analyze data. The data gathered as a result of measurements during research was done in computer by SPSS software. For parametric datum, independent samples t-tests are applied to determine whether there was a meaningful difference among the opinions of the students according to gender and success factors.

## 3. Findings

### 3.1 The First Sub-question

The first sub-question sentence is “What is the level of students’ motivational persistence points at NEU and SU Universities?” In table 1, the mean and standard deviation values of student motivational persistence point are given.

Table 1. The descriptive statistical data about students’ motivational persistence points

items	n	X	SS
<b>Long-term purposes pursuing</b>	<b>286</b>	<b>3,43</b>	<b>0,824</b>
I remain motivated even in activities that spread on several months.	286	3,07	1,166
Long term purposes motivate me to surmount day to day difficulties.	286	3,67	1,165
I purposefully pursue the achievement of the projects that I believe in.a	286	3,79	1,107
I keep on investing time and effort in ideas and projects that require years of work and patience.a	286	3,23	1,158
<b>Current purposes pursuing</b>	<b>286</b>	<b>3,77</b>	<b>0,825</b>
I have a good capacity to focus on daily tasks.	286	3,93	1,070
Once I decide to do something, I am like a bulldog: I don't give up until I reach the goal.	286	3,88	1,076
I continue a difficult task even when the others have already given up on it.	286	3,56	1,149
The more difficult a task is, the more determined I am to finish it.	286	3,71	1,149
<b>Recurrence of unattained purposes</b>	<b>286</b>	<b>3,38</b>	<b>0,746</b>
I often come up with new ideas on an older problem or project.	286	2,93	1,181
From time to time I imagine ways to use opportunities that I have given up.	286	3,65	0,989
Even though it doesn't matter anymore, I keep thinking of personal aims that I had to give up.	286	3,21	1,227
I often find myself thinking about older initiatives that I had abandoned.	286	3,11	1,316
It's hard for me to detach from an important project that I had given up in favor of others.	286	4,03	1,159
<b>Total (Motivational Persistence )</b>	<b>286</b>	<b>3,53</b>	<b>0,676</b>

Students showed highest agreeing on the question 13 with 4,03 mean and lowest agreeing on the question 11 with 2,93 arithmetic average. When we examine the mean of total motivational persistence points, it is seen that 3,53 mean score is obtained. The opinions of students generally came together on option “I'm neutral” (3.40-4.19). Students displayed a determined attitude about the motivational persistence.

### 3.2 The Second Sub-question

The second sub-question is “Is there meaningful difference among the motivational persistence point means of students according to gender factor?” For this sub-question, hypothesis H1 is formulated as: “There is a meaningful difference between girl and boy students’ motivational persistence points at Education Faculty and Art and Design Faculty.

The data of total motivational persistence points result of independent samples t-tests are given in Table 2. According to gender factor, although there is a difference in girls’ favor among the NEU and SU University students’ motivational persistence point averages, this difference is not meaningful.

Table 2. According to gender factor, t test results of NEU and SU University students' motivational persistence points

Sub-dimension		N	Mean	Std.dev.	sd	t	Sig.
LTP	Girl	200	3,4750	,82135	1,133	284	,258
	Boy	86	3,3547	,82913			
CPP	Girl	200	3,8288	,81196	1,812	284	,071
	Boy	86	3,6366	,84510			
RUP	Girl	200	3,4070	,73570	,749	284	,455
	Boy	86	3,3349	,77274			
Total	Girl	200	3,5703	,67249	1,474	284	,142
	Boy	86	3,4421	,67971			

### 3.3 The Third Sub-question

The third sub-question is "Is there meaningful difference among the motivational persistence point means of students according to age factor?" For this sub-question, hypothesis H1 is formulated as: "There is a meaningful difference among University students' motivational persistence point averages according to age factor."

The datum of motivational persistence points one-way variance analysis test are given in Table 3. According to age factor, current purposes pursuing dimension and total motivational persistence point means are meaningful. 20 years old and lowers as 1, 21- 22 years old as 2, 22-24 years old as 3 and 25 years old and higher as 4 were titled. 25 years old and higher group motivational persistence level most higher other groups,

Table 3. According to age factor, one-way variance analysis-test results of University students' motivational persistence points

Sub-dimension	Source of Variance	Sum of squares	sd	Mean square	F	Sig.	Meaningful difference
Long-term purposes pursuing	Between Groups	2,857	3	,952	1,408	,241	
	Within Groups	190,697	282	,676			
	Total m	193,554	285				
Current purposes pursuing	Between Groups	8,761	3	2,920	4,443	,005	1-3
	Within Groups	185,364	282	,657			1-4
	Total m	194,124	285				3-4
Recurrence of unattained purposes	Between Groups	2,958	3	,986	1,784	,150	
	Within Groups	155,821	282	,553			
	Total m	158,778	285				
Total motivational persistence	Between Groups	3,994	3	1,331	2,974	,032	3-4
	Within Groups	126,261	282	,448			
	Total m	130,256	285				

### 3.4 The Fourth Sub-question

The fourth sub-question is "Is there meaningful difference among the motivational persistence point means of NEU and SU students according to teaching branch factor?" For this sub-question, hypothesis H1 is formulated as: "There is a meaningful difference among University students' motivational persistence point averages according to teaching branch factor."

The datum of motivational persistence points one-way variance analysis test are given in Table 4. According to teaching branch factor, Long-term purposes pursuing, current purposes pursuing, recurrence of unattained purposes dimensions and total motivational persistence point means are meaningful. Turkish branch as T, Math branch as M and Art branch as A were titled. In all dimensions and total motivational persistence point mean differences favor for art branches.

Table 4. According to teaching branch factor, one-way variance analysis-test results of University students' motivational persistence points

Sub-dimension	Source of Variance	Sum of squares	sd	Mean square	F	Sig.	Meaningful difference
Long-term purposes pursuing	Between Groups	12,371	2	6,186	9,662	,000	T-A
	Within Groups	181,183	283	,640			M-A
	Total m	193,554	285				
Current purposes pursuing	Between Groups	10,209	2	5,104	7,855	,000	T-A
	Within Groups	183,915	283	,650			M-A
	Total m	194,124	285				
Recurrence of unattained purposes	Between Groups	7,593	2	3,797	7,107	,001	T-A
	Within Groups	151,185	283	,534			M-A
	Total m	158,778	285				
Total motivational persistence	Between Groups	9,642	2	4,821	11,311	,000	T-A
	Within Groups	120,614	283	,426			M-A
	Total m	130,256	285				

#### 4. Discussion and Interpretation

Analyzing the findings demonstrated that mean total score of motivational persistence for the students is 3.53 with standard deviation of 0.67. The opinions of students generally build up on option "I agree (3,40-4,19). Students didn't display all determined attitude about their motivational persistence, but determined. The level of student motivational persistence we discovered is good level. We can say that the students joined the research are needs of a little activate their full motivation in their academic term.

When we compare the data according to gender factor, it reveals that the motivational persistence point means of girls are little higher than the boys' motivational persistence point means. This result can't be evaluated as if girls are more determined. The results of this research are similar to some studies in literature (Dubey, 1982; Duckworth et al., 2007; Duckworth et al. 2009). But, the differences reached by this study were not meaningful difference. It can be said that an error could be involved in the data when we gathered it.

When we compare the data according to age factor, except for "Current Purposes Pursuing" and "total" motivational persistence means, other groups' motivational persistence means didn't reveal significant difference. According to "Current Purposes Pursuing" sub-dimension, the students 25 years and older ages have the highest motivational persistence point average; the students 21-22 years old have the second highest motivational persistence point mean, the students 20 years old and lower have the lowest motivational persistence point mean. According to total motivational persistence means, the students 25 years and older ages the highest motivational persistence point mean, the students between 21-22 years old have the second highest motivational persistence point mean and the students 22-23 years old have the lowest motivational persistence point mean. As these results, both of two dimensions 25 years old and higher students have more persistence. This difference can be interpretable such that it is stem from their life experience.

According to teaching branch factor, all dimensions have meaningful differences. According to the all dimensions, Art and Design Faculty students have the highest motivational persistence point mean. Branch of Mathematics Education is the second. The lowest motivational persistence point average belongs to branch of Turkish Language Education. The difference related to the students of Art and Design Faculty could be that they behave more dedicated for producing original products.

#### 5. Conclusions and Suggestions

It is seen that the motivational persistence point averages of University students are in good level, the girls', between 23-24 years old and 25+ years old and Art and Design Faculty students' motivational persistence point average are higher than the other groups relatively. There is not a meaningful difference between girl and boy students' motivational persistence points at Education Faculty and Art and Design Faculty. According to these results, these suggestions can be given for practitioners and researchers;

- Reordering on standards of lesson programs to increase future teachers' motivational persistence.
- The Standard in reordering can be determined higher than present standards.
- The struggler areas can be made for increasing students' motivational persistence.
- According to different new factors can be considered for new research about the motivational persistence and success.

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