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Academic Self-Efficacy Beliefs of Pre-Service Elementary School Teacher Candidates

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Abstract

The purpose of this study is to examine the self-efficacy beliefs of pre-service elementary school teacher candidates with special reference to their gender. To do so, *Academic Self-efficacy Scale* (ASE) adapted from Owen and Froman (1988) and used by Ekici (2012) was used. The questionnaire was conducted in Turkish for clarity, the translation of which was done by language specialists (Ekici, 2012). The overall reliability of the scale for Turkish version has been found .86. It is .88 for SS, .82 for CA, and .90 for TS. As for the difference in gender, independent sample t-test was utilized. The results have indicated that they have almost positive attitudes towards their self-efficacies in their academic studies. Gender is not a significant factor in academic self-efficacy beliefs of pre-service elementary school candidate teachers. Lastly, to see if the participants differ in their opinions on academic self-efficacy with regard to their age range, One-way Anova was used. The results indicated that they also do not differ in this issue.

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Keywords: Pre-service elementary school teacher candidates, self-efficacy, age, gender.

1. Introduction

Self-efficacy, one of the issues under study in this research, is a concept introduced by Bandura (1986) who developed the theory of social learning. "*Social learning theory* describes the acquisition of skills that are developed exclusively or primarily within a social group. Social learning depends on how individuals either succeed or fail at dynamic interactions within groups, and promotes the development of individual emotional and practical skills as

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well as accurate perception of self and acceptance of others. According to this theory, people learn from one another through observation, imitation, and modeling” (<http://en.wikipedia.org/wiki/Self-efficacy>). *Self-efficacy* reflects an individual’s understanding of what skills he/she can offer in a group setting. It is a motivational theory that the psychological processes serve for capacities to do a task in the social life. Namely, he describes it in such a way that one’s self efficacy beliefs are their own perceptions capacities to plan, design, and employ to reach a certain goal in life (Linnenbrink & Pintrich, 2003; Senemoğlu, 1997). Zimmerman (1995) supports this view point stating that self-efficacy is the judgments of an individual about how well he is able to make something come true and succeed at the end (cited in Sarıçoban, 2008). “According to Bandura's theory, people with high self-efficacy—that is, those who believe they can perform well—are more likely to view difficult tasks as something to be mastered rather than something to be avoided” (<http://en.wikipedia.org/wiki/Self-efficacy>).

As to the definition of self efficacy at this webpage,

Self-efficacy is the extent or strength of one's belief in one's own ability to complete tasks and reach goals. Psychologists have studied self-efficacy from several perspectives, noting various paths in the development of self-efficacy; the dynamics of self-efficacy, and lack thereof, in many different settings; interactions between self-efficacy and self-concept; and habits of attribution that contribute to, or detract from, self-efficacy.

(<http://en.wikipedia.org/wiki/Self-efficacy>).

2. Research Questions

The present study aims to find answers to the following questions: (1) What is the pre-service elementary school teacher candidates’ level of self-efficacy for their academic studies? (2) Are there any significant differences between their opinions of academic self-efficacy in terms of gender and age?

3. Method

3.1. Subjects

The subjects of this study consist of 48 pre-service elementary school teacher candidates at Hacettepe University in 2014-2015 academic year. As seen in Table 1 below, of the 48 total participants, 9 are males and 39 are females ranging in age 17 to26+. They are enrolled in their first year at the department (Freshmen Level).

Table 1. Demographic Information of the Subjects

		Count	Table N %
Gender	Male	9	18,8%
	Female	39	81,2%
Age	17-20	46	95,8%
	21-25	1	2,1%
	26+	1	2,1%
	TOTAL	48	100,0%

3.2. Instruments

“Academic Self-efficacy Scale (ASE) adapted from Owen and Froman (1988) and used by Ekici (2012) consists of 33 items, 10 of which are for *Social Status (SS)* (Items: 2, 3, 4, 11, 14, 15, 16, 17, 25, and 27), 19 of which are for *Cognitive Applications (CA)* (Items: 1, 5, 6, 7, 8, 9, 10, 12, 13, 18, 19, 20, 21, 22, 24, 30, 31, 32, and 33) and the rest 4 are *Technical Skills (TS)* (23, 26, 28, and 29). The questionnaire was conducted in Turkish for clarity, the translation of which was done by language specialists (Ekici, 2012). The overall reliability of the scale for Turkish version has been found .86. It is .88 for SS, .82 for CA, and .90 for TS.

4. Data Analysis and Discussion

Descriptive statistics were utilized to analyze the data obtained from the current study (SPSS 20.0). *Independent samples t-test* was applied to see if there was a significant difference between the participants’ opinions on their academic self-efficacy beliefs in terms of gender and age. In terms of difference between the two samples the t-calculated value was compared to the t-table value (1.645 according to the degrees of freedom (df) used to obtain the observed significance level). The probability level was regarded at .05. As for the difference in terms of age, *One-way Anova* was used.

What is the pre-service elementary school teacher candidates’ level of self-efficacy for their academic studies?

A careful analysis of Table 2 indicates the overall the means for the participants’ beliefs about their own academic self-efficacy that implies that they have almost positive attitudes towards the issue (M=3,75). A further analysis of these beliefs on academic self-efficacy implies highly favorable attitudes towards most of the characteristics such as

Social Status: Item 4: I can answer a question if there are less number of students (M=4,37) and Item 16: I can make lecturers regard me (M=4,14).

Cognitive Applications: Item19: I can make any lecturer think that I pay attention to/focus on my lessons, Item 5: I do objective tests like multiple-choice, true-false, etc. (M=4,31), Item 22: I can use some mathematical calculations (M:4,50), Item 6: I do some tests for trial and Item: I attend classes regularly (M=4,22), Item 10: I can explain and describe a concept to another student (M=4,10), Item 21: I can understand the concepts and opinions discussed in class (M=4,06), Item 13: I study hard (M=3,97), Item 8: I can listen to a difficult topic during lesson (M=3,93), Item 24: I can handle most of the topics under discussion (M=3,81), Item 9: I can teach another student (M=3,79), and Item 31: I plan to study (M=3,77).

Technical Skills: Item 29: I use the library effectively (M=4,35) and Item 23:I can use computer effectively (M=4,20),

Table 2. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Academic self-efficacy	48	3,00	4,30	3,7595	,33421
Valid N	48				

Are there any significant differences between their opinions of academic self-efficacy in terms of gender and age?

In order to see if there exists any statistically significant difference between the participants’ opinions on their academic self-efficacy beliefs in terms of gender, t-test was calculated and the results indicated that they do not differ in this issue (M=3,81 for males and M=3,74 for Females). Therefore, it can be said that gender is not a significant factor in academic self-efficacy beliefs of pre-service elementary school candidate teachers.

Table 3. Independent Samples Test

		Levene's Test for t-test for Equality of Means									
		Equality of Variances									
		F	Sig.	t	Df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference		
										Lower	Upper
Academic self-efficacy	Equal variances assumed	,397	,532	,581	46	,564	,07226	,12447	-,17828	,32281	
	Equal variances not assumed			,535	11,044	,603	,07226	,13499	-,22471	,36923	

On the other hand to see if the participants differ in their opinions on academic self-efficacy with regard to their age range, One-way Anova was used. The results indicate that they also do not differ in this issue. The means calculated for the age variable are 3,00 for 17-20 range, 3,15 for 21-25 range, and 3,58 for 26+ range. As a result, age cannot be said to have influence on academic self-efficacy beliefs (Table 4). It can be said that as seen in Table 4 almost all of the participants (N=46; Age range:17-20) fall in the first category. Only one of the participants falls in the second category and the other one falls in the last category. Therefore, it is quite natural that there exists no difference at all in terms of age variable in their beliefs of academic self-efficacy.

Table 4. Descriptives for Age

		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Academic self-efficacy	17-20	46	3,7767	,32771	,04832	3,6794	3,8740	3,00	4,30
	21-25	1	3,1515	.	.	.	.	3,15	3,15
	26+	1	3,5758	.	.	.	.	3,58	3,58
	Total	48	3,7595	,33421	,04824	3,6624	3,8565	3,00	4,30

5. Conclusion

The current study has investigated pre-service elementary school teacher candidates' opinions on their academic self-efficacy beliefs. The results have shown that they have almost positive attitudes towards their self-efficacies in their academic studies. They favor

- a. doing some mathematical calculations,
- b. answering questions,
- c. using libraries,
- d. making any lecturer think that they pay attention to/focus on their lessons,
- e. working with objective tests like multiple-choice, true-false, etc.,
- f. doing some tests for trials,
- g. attending classes regularly,
- h. using computers,
- i. making lecturers regard them,
- j. explaining and describing a concept to another student,
- k. understanding the concepts and opinions discussed in class,
- l. studying hard,
- m. listening to a difficult topic during lesson,
- n. handling most of the topics under discussion,
- o. teaching another student, and
- p. planning to study.

Last but not least to increase the self-efficacies of our teacher candidates we should provide them with opportunities to attend classroom activities through question-answer sessions, discussions, micro-teachings (doing sample lessons), planning their lessons, making use of library facilities, using technology, etc.

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