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## The predictors of pre-service pre-school teachers' self-efficacy beliefs

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### Abstract

The aim of this research is to examine the extent of pre-service preschool teachers' self-efficacy beliefs and elicit the relationship between their sub-dimensions of life goals, and various variables. For this purpose, data were collected from a total of 465 university students. The data on the dependent variables were obtained using Life Goal Scale. The data on the independent variables were obtained using the Pre-school Teachers Self-Efficacy Beliefs Scale. The study employed one of the general survey models, the relational survey model. The participant teachers' self-efficacy beliefs and life goals are analysed according to some variables and the relationships between them are investigated. In the analysis of data, the Simple Linear Regression Analysis was used. According to the research findings, it was found that the relation between teachers' self-efficacy beliefs and personal development and social responsibility sub-dimensions of Life Goals Scale was significant at  $p < 0.05$ .

Keywords: Pre-service preschool teachers, teachers' self-efficacy beliefs, life goals.

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## 1. Introduction

The teaching profession is one that requires specialised expertise. Pre-service teachers who prefer this profession must have certain competencies in order to fulfill the requirements of the profession (Sisman, 2001). According to Ari (2009), a good teacher has eight basic characteristics. These are subject-area knowledge, decision making, critical thinking and problem-solving skills, self-recognition and self-correction, reflection, knowing students and their learning needs, applying new findings about education, and finally teaching and communication skills. A teacher with these qualities is also believed to have strong self-efficacy beliefs. Acquisition of the competencies required by the teaching profession is closely associated with teachers' belief in their ability to fulfill teaching-related duties and responsibilities as well as with receiving good education (Turk, 2008). Teachers' self-efficacy beliefs are very important in the teaching process. Teachers with high self-efficacy beliefs make a difference in the academic and social development of students in the educational process. This difference is reflected in the behaviours of the students and their teaching and learning processes (Ozenoglu Kiremit, 2006). In this respect, it is of great importance to enhance self-efficacy beliefs of pre-service teachers during their undergraduate training.

The concept of self-efficacy was first coined by Bandura. Bandura (1977) refers to the concept of self-efficacy within the Social Cognitive Theory, defining it as an individual's belief in organising and implementing the activities necessary to succeed in a particular subject. Self-efficacy belief is a concept embedded in self-concept. Self-efficacy is what an individual believes he/she is good enough to do; it is very different from knowing what to do. It is an individual's evaluating his/her self-efficacies, skills and capacities and then turning them into behaviours. Self-efficacy is of great importance for personality development (Bandura, 1977). In fact, it can be argued that the individual draws on his/her cognitive processes in the formation of his/her self-efficacy belief. Self-efficacy is an inner belief and not an observable, perceptible concept (Uzel, 2009). Teacher self-efficacy belief is defined as the belief in the capacity that teachers have in influencing student performance (Tschannen-Moran, Woolfolk-Hoy and Hoy, 1998). Self-efficacy beliefs directly affect the success of teachers both in and outside the classroom (Ozata, 2007). Teachers' believing in themselves is very important for them to fulfill their duties and responsibilities as successfully as expected from them. Having the necessary skills is not enough for success; success also requires the effective and safe use of these skills (Denizoglu, 2008). It is necessary for teachers who have a very important place in the education of children to acquire the necessary qualifications during pre-service training and to complete this pre-service training with high self-efficacy belief, which seems to be very important for their prospective students and for society as well.

Many variables that are thought to affect an individual's self-efficacy belief can be listed. One of these variables is thought to be the goal or goals of the individual in life. As stated by Aydiner (2011), life goals are the goals that individuals want to accomplish in either the long or short terms of their lives, for which they make efforts and which are meaningful to them. There are many psychologists, philosophers and theoreticians who work on life goals. Victor E. Frankl, one of the existentialist theorists, is among the first to come to mind among those who study life goals. According to Frankl (1945/2007), the meaning of life differs from man to man, from day to day and from hour to hour. What is important is not the meaning of life in general, but the specific meaning of human life in a certain time period; that is, the goal of human life in a certain time period. The individual should not be in the pursuit of an abstract meaning. Each person must have a special occupation, special friends, special hobbies and ideals to struggle for, namely life goals. Rotter is one of those who work on life goals or life expectations and who has proposed many explanations on these topics. In Rotter's (1972) theory, four types of variables were mentioned, which are basically behaviours, expectations, consequences of behaviours and psychological states (Rotter, Chance & Phares, 1972, p. 41). According to Rotter's theory, the individual's expectations in life direct his/her behaviours and the value loaded by the individual on the consequences of these expectations and his/her psychological states are determinants of his/her behaviours in life.

According to the life goals scale developed by Aydiner (2011), who also conducted its reliability and validity studies, life goals consist of five sub-dimensions. These are personal development, material gain, physical appearance, social responsibility and self-awareness. Individuals set goals for themselves during their lifetime. Every individual undergoing a healthy development process is in the pursuit of constant personal development and making use of his/her potential. According to Burger (2006, p. 424), the person who uses the full potential learns to trust his/her own feelings. They determine their life goals and consider their own interests, values and needs while taking important decisions such as career and lifestyle choices. Those who use their full potential live their emotions more deeply and intensely than others. Because of this sensitivity, people who use their full potential experience greater wealth in their lives. Individuals need income to survive. The material gain can sometimes be an instrument for the individual to achieve a goal. According to Fromm (2003, p. 101), because we live in a society based on private property, profit and power, our judgments of thoughts and values are as if they were pre-determined. For this reason, the most sacred and most natural rights of individuals in industrial societies are earning, possessing property and working for earning. Throughout history, individuals' perceptions of their own physical appearances are important for them. Many people resort to many methods to be found attractive by other people. Even the disorder in perceiving their own body images is dragging them into many psychosomatic disturbances. Taking all this into account, it becomes clear how important individuals' physical appearance is for them in their lives (Petrovich, 2004). The concept of social responsibility, which comes to the forefront with increasing social responsibility projects today, has an important place in the lives of individuals. As long as the individual lives, he/she sets some goals he/she wants to achieve for himself/herself and his surrounding. Self-awareness means the individual being aware of his/her personal characteristics such as individual values, behaviours, attitudes, cognitive processes, physical features and abilities. Awareness has an important place in the life of the individual. What makes personal development possible is the self-recognition, acceptance of personal characteristics and awareness of competences and, on the basis of these, setting goals (Aydiner, 2011). As the current study focuses on the determination of variables that predict self-efficacy of pre-service teachers, it can thus contribute to the determination of what should be taken into consideration in the design of educational processes for pre-service teachers, the current study seems to be necessary and significant. Moreover, when the research on self-efficacy beliefs of pre-service teachers is reviewed, it is seen that there is not much research taking life goals as an independent variable.

## **2. Method**

The current study was planned in the relational survey model, one of the general survey models. The relational survey model allows for the identification of the existence and/or degree of co-change (Karasar, 1999, p. 81), explaining it and predicting its results (Tekbiyik, 2014, p. 101). A study exploring relationships and connections is generally called the relational study (Buyukozturk, Kilic Cakmak, Akgun, Karadeniz and Demirel, 2009, p. 22).

### **2.1. Study Group**

The data for the study were collected from 491 pre-service pre-school teachers voluntarily participating in the study from Burdur Mehmet Akif Ersoy University and Afyon Kocatepe University. Yet, due to data losses and as some outliers were excluded from the dataset, the analyses were conducted on the data collected from a total of 465 participants, of whom 43 are males and 422 are females. While 95.3% ( $n = 443$ ) of the pre-service pre-school teachers stated that the profession of teaching is suitable for them, the remaining 4.7% ( $n = 22$ ) stated that it is not suitable for them. Moreover, 52.5% ( $n = 244$ ) stated that they are successful in their courses, 80% ( $n = 372$ ) stated that they are happy with their department. While 44.1% ( $n = 205$ ) stated that they are a bit successful, 3.4% ( $n = 16$ ) stated that they were not successful.

## 2.2. Data Collection Tools

The Life Goals Scale: The scale developed by Aydiner (2011) to measure and evaluate individuals' life goals is a five-point Likert scale comprised of five dimensions and a total of 31 items. There is no reverse coded item in the scale. Sub-dimensions of the scale are Personal Development, Material Gain, Physical Appearance, Social Responsibility and Self-awareness. For construct validity of the scale, the relationship between the dimensions was investigated through the confirmatory factor analysis as well as the exploratory factor analysis and the correlation coefficient was examined. KMO (Kaiser-Meyer-Olkin) and Barlett tests were applied to determine whether data were appropriate for factor analysis in the explanatory factor analysis of the scale. The KMO value of the scale was found to be 0.90 and as this value was close to 1.00, it was determined to meet the criteria. Confirmatory factor analysis of the scale indicated that the goodness-of-fit indices obtained were within the acceptable limits. A correlation at the level of 0.07 was found between the Life Goals Scale and the Life Satisfaction Scale and at the level of 0.18 between the Life Goals Scale and the General Self-efficacy Scale. Pre-school Teachers' Self-efficacy Beliefs Scale: The scale developed by Tepe and Demir (2012) is a five-point Likert scale with items whose response alternatives are none (1), a little (2), some (3), much (4) and completely (5). The scale can be used as both a uni-dimensional scale and a multi-dimensional scale. The scale has a total of 37 items and its Cronbach Alpha reliability coefficient is 0.97. Demographic Information Form: In this form developed by the researcher, there are questions aiming to elicit information about gender, the state of being happy with the department, the presence or absence of a teacher in the family.

## 2.3. Data Collection Tools

In the current study, the predicted variable is pre-service pre-school teachers' self-efficacy belief and the predicting variable is life goals. In the study, Simple Linear Regression analysis was used in the analysis of the data to reveal the extent to which the pre-service teachers' life goals predict their self-efficacy beliefs. In the analysis of the data, the significance level was set at 0.05. One-way outliers were examined in the preparation stage of the data analysis. For this, standardised 'z' scores were examined. The 'z' score range should be between -3 and +3 (Cokluk, Sekercioglu and Buyukozturk, 2014, p. 14). The data whose 'z' values are outside the range of -3 and +3 were excluded from the dataset. Before starting with the analyses, the hypotheses of the simple linear regression analysis were examined. For the analyses, SPSS 22 program package was used.

## 3. Findings

In this section, correlation coefficients between the variables and descriptive statistics related to these variables and the findings as regards whether the pre-service teachers' life goals and the state of their gender's being female predict the level of self-efficacy belief are presented.

**Table 1. Between-variables correlation coefficients and descriptive statistics related to the variables**

Variables	1	2	3	4	5	6	M	SD
1. Self-efficacy belief	–	0.489**	0.013	0.139**	0.479**	0.441**	158.8	18.4
2. Personal development	0.489**	–	-0.026	0.189**	0.653**	0.722**	45.6	4.6
3. The material gain	0.013	-0.026	–	0.604**	0.054	0.004	15.0	5.8
4. Physical appearance	0.139**	0.189**	0.604**	–	0.191**	0.167**	18.7	5.2
5. Social responsibility	0.479**	0.653**	0.054	0.191**	–	0.607**	16.7	2.6
6. Self-awareness	0.441**	0.722**	0.004	0.167**	0.607**	–	17.3	2.4

\*\* $p < 0.01$

\* $p < 0.05$

Table 1 shows that the independent variables; personal development, physical appearance, social responsibility and self-awareness sub-dimensions, are correlated with the dependent variable self-efficacy at levels of 0.01 and 0.05. Correlation values do not exceed 0.90 in terms of the multi-collinearity risk (Cokluk et al., 2014). On the other hand, the material gain sub-dimension is only correlated with the physical appearance independent variable at the level of 0.01 and 0.05; yet, it does not have a significant correlation with both the dependent variable self-efficacy and the independent variables; personal development, social responsibility and self-awareness. As the obtained results showed that there is no multi-collinearity problem, the regression analysis was continued. The results of the multiple regression analysis conducted to determine the extent to which the pre-service pre-school teachers' life goals predict their self-efficacy beliefs are presented in Table 2.

**Table 2. Multiple regression analysis results related to prediction of self-efficacy belief**

Variables	B	Sh	$\beta$	t	p	Ikili r	Kismi r
1. Self-efficacy belief							
2. Personal development	0.951	0.250	0.238	3.810	0.000*	0.489	0.175
3. The material gain	-0.060	0.163	-0.019	-0.370	0.712	0.013	-0.017
4. Physical appearance	0.140	0.183	0.039	0.766	0.444	0.139	0.036
5. Social responsibility	1.782	0.385	0.250	4.631	0.000*	0.479	0.211
6. Self-awareness	0.853	0.453	0.111	1,882	0.060	0.441	0.088
$R = 0.539$ $R^2 = 0.290$ $F_{(5-459)} = 37,536$ $p = 0.000$							

When the pairwise correlation and partial correlation between the predicting variables and the dependent variable are examined, it is seen that the independent variables; personal development and social responsibility explain 29% of the total self-efficacy variance ( $R = 0.539$   $R^2 = 0.290$   $F_{(5-459)} = 37.536$ ;  $p = 0.000$ ). According to  $t$ -test results related to the significance of the regression coefficients given in Table 2, the personal development ( $t = 3.810$ ,  $p < 0.05$ ) and social responsibility sub-dimensions ( $t = 4,631$ ,  $p < 0.05$ ) significantly predict the pre-service pre-school teachers' self-efficacy beliefs in a positive direction. However, the material gain ( $t = -0.370$ ), physical appearance ( $t = 0.766$ ) and individual difference ( $t = 4.631$ ) sub-dimensions do not significantly predict the self-efficacy beliefs.

#### 4. Discussion, results and suggestions

When the literature on pre-service teachers' self-efficacy beliefs is reviewed, it is seen that there are studies investigating pre-service teachers' self-efficacy beliefs depending on different variables (Tatli Dalioglu, 2016; Nakip, 2015; Yildirim, 2011; Girgin, Akamca, Ellez and Oguz, 2010; Walker, Greene & Mansell, 2006), exploring the factors affecting teachers' self-efficacy beliefs or comparing pre-service teachers and teachers in terms of their self-efficacy beliefs (Yoldas, Yetim & Kucukoglu, 2016; Senol Ulu, 2012; Guskey & Pasarro, 1994). In general, it has been emphasised in the studies focusing on teacher self-efficacy beliefs that determination of self-efficacy beliefs is important for teachers to deliver a good instruction and education. Individuals with strong self-efficacy beliefs can set strong goals and take more responsibility because individuals with strong self-efficacy beliefs can create success scenarios in their minds that positively affect performance. In contrast, the individual with low self-efficacy beliefs is more likely to create a scenario of failure, so he/she might think that no matter how much effort he or she makes for any event, he or she may be unable to reach a successful conclusion, and thus may give up at the beginning (Cubukcu & Girmen, 2007). Teacher self-efficacy belief affects professional satisfaction and the academic achievement of students (Caprara, Barbaranelli, Steca & Malone, 2006). While professional burnout and self-efficacy belief are negatively correlated, personal success and self-efficacy belief are positively correlated. High self-efficacy beliefs

in teachers cause them to be more ready to practice and to perform new educational practices afterwards (Evers, Brouwers & Tomic, 2002). In a study conducted by Comrade, Yetim and Kucukoglu (2016) on the comparison of the self-efficacy beliefs of pre-service pre-school teachers and those of pre-school teachers, it was found that the self-efficacy beliefs of the teachers were higher than those of the pre-service teachers. Guskey and Pasarro (1994) compared the self-efficacy beliefs of teachers and pre-service teachers. Their results showed that the teachers' self-efficacy beliefs are stronger than those of the pre-service teachers. Though no significant difference was found between the self-efficacy beliefs of the teachers and pre-service teachers, the teachers' self-efficacy beliefs were found to be higher. Nakip (2015) notes that though the success in the profession of teaching greatly depends on innate characteristics, the effect of teacher training and setting where this training is received cannot be overlooked. High self-efficacy belief and positive attitudes towards the profession of teaching are important characteristics to be possessed by pre-service teachers.

In the studies in which the teacher candidates' self-efficacy beliefs were examined depending on different variables, it was seen that there was no significant difference based on the gender variable. During the analysis process of the current study, the gender was appointed as dummy and it was investigated whether it is a predictor of self-efficacy belief. As a result, it was found that the gender variable does not significantly predict self-efficacy belief. Therefore, the finding related to the gender variable is not given in the regression table. This finding of the current study concurs with the literature. Pre-service teachers who are the teachers of future and in-service teachers need to have strong self-efficacy beliefs. Teachers' educational lives are of great importance for them to have a high level of self-efficacy beliefs and to positively affect their students' achievement (Gokdag Baltaoglu, Sucuoglu & Yurdabakan, 2015). No matter how much knowledgeable an individual is, if his/her self-efficacy belief is low, he/she cannot fulfill his/her duties as good as expected from him/her, because for an individual to get into action, he/she needs to have strong self-efficacy belief. Teachers should make planning and applications in such a way as to enhance their students' self-efficacy beliefs. To do so, first they need to believe that they are qualified teachers and have strong self-efficacy beliefs. Therefore, during their pre-service training, teachers should be provided with what is needed to be a qualified teacher and opportunities to complete their pre-service education having strong self-efficacy beliefs.

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