# The Educational Beliefs of Pre-Service Teachers as an Important Predictor of Teacher Identity

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# The Educational Beliefs of Pre-Service Teachers as an Important Predictor of Teacher Identity

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## Abstract

This study aims to determine the relationship between the educational beliefs and teacher identity of pre-service teachers from all grade levels of four different departments at Afyon Kocatepe University. Besides, to what extent the educational beliefs predict their teacher identity is also examined. The research is conducted using the correlational survey model. The sample of the study consists of 324 pre-service teachers who are studying in all grades at Afyon Kocatepe University. In the data collection process, "Education Belief Scale" developed by Yılmaz, Altınkurt and Çokluk (2011) and "Early Teacher Identity Measure" developed by Friesen and Besley (2013) and adapted into Turkish by Arpacı and Bardakçı (2015) is used. In line with the findings, the pre-service teachers' dominant educational philosophies are identified as existentialism, progressivism, re-constructionism, perennialism, and essentialism, respectively. There is a significant and positive relationship between educational beliefs and teacher identities, except for essentialist belief. The results suggest that the pre-service teachers' educational beliefs and teacher identities differ significantly in terms of gender, grade and department variables. Additionally, while the prediction model is significant, progressivist educational belief is found out to be the most important dimension in the model that explains the teacher identity. These four educational beliefs, together, account for 23% of the change in teacher identity level of pre-service teachers.

**Key words:** Teacher identity, Educational beliefs, Pre-Service teachers.

## Introduction

Nowadays, theories in which the student is taken to the center in educational environments are put to work. The principles of these theories include giving importance to the interests, needs, attitudes and educational beliefs of the individual who will gain knowledge, skills or competence through teaching and learning processes. Especially, because of the view that beliefs are a major factor affecting the quality and outcomes of the educational process, more researchers focus on belief and concepts related to this concept in the educational literature.

One of the most powerful factors in the formation and emergence of behavior is the belief of an individual (Bandura, 2006). Belief can be defined as the processes and qualifications aimed at perceiving, interpreting, evaluating, and determining the attitudes and tendencies of an individual about the situation, phenomena, and concepts that the individual encounters during his/her life (Deryakulu, 2008). Researchers define the concept of belief as a structure composed of emotion, behavior, and tendency components towards objects and events and place beliefs on the basis of attitude formation (Hogg & Vaughan, 2005). Attitude is the preparatory tendencies that involve the regular and coherent roles of mental, affective, and behavioral expressions of an individual towards an object (Kağıtçıbaşı, 2010).

Beliefs that are adopted by teachers in education include elements such as methods and techniques used in conducting educational activities, theoretical foundations of approaches in the learning environment, competent communication with students, and systematic classroom management (Çapa & Çil, 2000). When all these components come together, teachers' educational philosophies come into being. Determining their beliefs about education, which is one of the important drivers of quality in education, is thought to be an important initiative in order to increase the quality of education and training activities.

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With the developments in the information age, the opportunities in the process of access to information have increased and diversified. This situation has brought about important improvements in education, such as the more effective and active participation of students in the teaching process and in structuring information. The teacher who is an important factor in ensuring the adaptation of individuals has important tasks at this stage (Karahan, 2003). According to Varış (1994), the success of an education system depends on the beliefs and attitudes of teachers in terms of cognitive, affective, and dynamic aspects and the coordination between them. According to Carter and Norwood (1997) and McDiarmid (1990), knowing the educational beliefs of teachers and pre-service teachers is the first step towards improving the quality of education and understanding the values and beliefs of those involved in carrying out these processes (cited by Bulut, 2009).

Education, which has been described in different ways by philosophers and educators in the historical process, has always had a philosophical perspective. In the field of education, as in other intellectual fields, philosophy evaluates the underlying concepts of educational systems, brings educational approaches together in a rational way and disciplines assumptions, beliefs, and decisions according to meaning and consistency criteria (Cevizci, 2012). It is possible to explain all dimensions of education and the functions and actions between these dimensions with the philosophy of education. Educational philosophies, which are at the center of curriculum development and evaluation activities, are a phenomenon that affects all the dimensions making up the curriculum within the ideological framework. Educational philosophies classified according to various criteria can be categorized roughly as traditional/contemporary or rigid/flexible (Kılıç, 2000).

Perennialism which is predominantly based on realistic and idealistic philosophy perceives the universe in a spiritual form because it attaches importance to metaphysics and absolute values, and it reveals the position of man in the universe spiritually. According to the perennialist, the only truth is mind, and all material things that must be real can be reduced to mind or soul (Brauner & Burns, 1982). The process of knowing takes place in the form of remembering or defining the pre-existing, formed, and perpetual concepts in idealism. Therefore, school is a social institution established to develop the potential of the human mind (Gutek, 2001).

Essentialism, on the other hand, is based on realist and idealist philosophies as an educational philosophy claiming that man as a social being has a standard essence and is not endowed with any innate knowledge. In terms of essentialist philosophy, the aims of education are to develop the mind and will of the human being, to ensure that the rules of the mind are used correctly and effectively, and to educate the individual according to ideal and universal realities. According to the essentialism assuming that information is obtained through induction, the most important mission of the school is to teach the individual intellectual disciplines and thus to ensure the continuity of cultural heritage (Cevizci, 2012).

According to progressivism which is based on John Dewey pragmatism, education is a social work done to make an individual competent, strong, and productive in society. The pragmatists who claim that education is not a result but a process of life itself argue that the content should be structured in integrity with human nature and environment and with purposeful experiences selected considering the interests of individuals. In a democratic environment, a cumulative process must prevail in the learning environment intended to be realized through actions and experiences (Kaplan, 2008). Additionally, real problems should be reflected in the educational environment, and all kinds of courses representing the whole life should be included in the program.

In re-constructionism, which is also called social restructuring, active participation of the individual's to learning environment is a result of the knowledge-based learning based on the mental activities. Restructuring which is based on reinterpreting, structuring and transferring existing knowledge claims that the learned knowledge should be a tool for solving problems in actual life (Doğanay & Sarı, 2003).

According to existentialism, which is a modern philosophical movement, the aim of education is to accustom man to the existing world. In existentialism where absolute or aristocratic subjectivism is involved in the teaching and learning process, the individual prepares himself/herself for both success and failure during the education process. Moreover, according to existentialism, students demonstrate the ability freely to express their learning processes in line with their abilities and interests (Kop, 2004). Although a continuous program is not mentioned in the existentialist philosophy, the curriculum design in the concept of existentialism is put forward flexibly according to the needs of the educational unit level and the characteristics of the students.

In the light of these explanations, it can be said that one of the important factors affecting the teachers' direct and indirect fulfillment of their roles and responsibilities in the context of educational activities is their philosophical orientation or preference. Nevertheless, the attitude towards teaching profession is an important factor in conducting it. The educational philosophies of teachers consist of ontological, epistemological and

axiological components. Ontologically, teachers have an orientation towards the relationship between teacher and student in educational settings and the roles of each other. Besides, teachers have thoughts about which type of knowledge has priority and what values should be conveyed in the education process and all these elements come together to form the beliefs of teachers.

The positive attitudes and beliefs of the individuals who will perform the teaching profession are the prerequisites for fulfilling the requirements of the profession in the most effective way. The positive attitude towards the profession also supports the commitment level of the teacher identity (Baydar & Bulut, 2002). It is possible for the teacher, who is one of the most important stakeholders in the continuation of education and training practices, to provide learning and teaching environment that supports the content targeted for the curriculum by being aware of the needs of his/her professional identity (Semerci & Semerci, 2004).

The teacher who is the representative of the concept of learning, which is considered as an interaction process, draws attention with the definition of 'authority figure' in line with the related literature. The teacher who is obliged to carry out his/her professional activity and to provide the necessary conditions for the success of the teaching process has many roles such as family member, counselor, boss, learning guide, professional expertise, judge, guide or therapist (Bozdoğan, Aydın & Yıldırım, 2007). When we are to place teachers' attitudes about their roles on classroom activities in a student-centered way, we end up seeing duties such as encouraging the students and planning in-class or out-of-class activities (Oral, 2004). Considering all these rankings, the teacher's actual identity, professional attitude and identity to adopt roles parallel to the relevant norms and values can only be associated with the philosophy of education which is considered only when carrying out educational activities (Bulut & Doğar, 2006).

### Importance of Research

In line with the literature reviewed, it is possible to state that the philosophy of education adopted by teachers and pre-service teachers occupies a great place in the formation of teacher identity. Teachers' commitment to their profession and social awareness of their profession are necessary and important to reach positive perception about their roles and believe that they have to constantly improve themselves (Temizkan, 2008). This research is important and necessary for the purpose of explaining the predictable dimensions of the relationship between pre-service teachers' educational beliefs and teacher identities. Furthermore, it is assumed that it can be a model in the related field with the benefit and usefulness it will bring to the literature. This model will attempt to clearly determine the impact of each of the educational philosophies on the belief in education and thus reveal the internal relationship between these two structures. With this model, it will be possible to determine which educational philosophy should be focused on in order to make educational belief positive and effective.

### Problem Statement

Thus, the study investigated whether there was a significant relationship between the educational beliefs and teacher identity of pre-service teachers. Furthermore, it examined the education beliefs and level of the teacher identity of pre-service teachers, and also, the effects of some demographic variables on these two concepts.

## Method

### Research Design

The research was conducted using the correlational survey model. The correlational survey model is important to reveal relationships between variables and to determine the levels of these relationships (Karasar, 2016, p. 114). Moreover, the correlational survey provides the necessary clues for conducting more complicated investigations on a relationship (Büyüköztürk, Kılıç Çakmak, Akgün, Karadeniz & Demirel, 2013, p. 185). This study tried to determine the relationship between the educational beliefs and teacher identity of pre-service teachers from all grade levels of four different departments at Afyon Kocatepe University. Besides, to what extent the educational beliefs predicted their teacher identity was also examined. The sub-problem of the study was whether these two concepts differed significantly in terms of gender, grade level, and department variables.

### Participants

The sample of the study consisted of 324 pre-service teachers who were identified through convenience sampling in all grades at Afyon Kocatepe University. The distribution of the determined sample according to some variables is presented in Table 1.

Table 1. Distribution of the Sample

| Variable | Value | f | % |
|---|---|---|---|
| **Gender** | Female | 274 | 84,6 |
| | Male | 50 | 15,4 |
| **Grade level** | 1st Grade | 75 | 23,1 |
| | 2nd Grade | 50 | 15,4 |
| | 3rd Grade | 62 | 19,1 |
| | 4th Grade | 137 | 42,3 |
| **Department** | Pre-School Education | 153 | 47,2 |
| | Primary School Education | 22 | 6,8 |
| | Social Sciences Education | 79 | 24,4 |
| | Mathematics Education | 70 | 21,6 |
| **TOTAL** | | **324** | **100** |

**Data Collection Tool**

In the data collection process, "Education Belief Scale" developed by Yılmaz, Altınkurt and Çokluk (2011) was used to determine which educational philosophy pre-service teachers predominantly conceptualized. The scale was a five-point Likert-type scale with a total of 40 items. The scale consisted of five factors: "Progressivism", "Existentialist Education", "Re-constructionism", "Perennialism", and "Essentialism". For the reliability of the scale, Cronbach Alpha internal consistency coefficients calculated for Educational Belief Scale's dimensions varied between .70 and .91 (Yılmaz, Altınkurt & Çokluk, 2011). In the present study, the Cronbach Alpha coefficients of the dimensions varied between .71 and .88. These values were considered to be highly reliable for the scale to be used in the present research (Tavşancıl, 2006, p. 29).

Besides, "Early Teacher Identity Measure" developed by Friesen and Besley (2013) and adapted into Turkish by Arpacı and Bardakçı (2015) was used to obtain the teacher identity level of the pre-service teachers. The scale was a five-point Likert-type scale which had a single factor with a total of 17 items. As a result of factor analysis, it was seen that the scale items explained 48.94 % of the variance. For the reliability of the scale, Cronbach Alpha internal consistency coefficients based on item analysis was .93 for the whole scale (Arpacı & Bardakçı, 2015). In the present study, the Cronbach alpha coefficient for the whole scale was calculated as .91.

**Data Analysis**

The data obtained from the scales were analyzed using SPSS statistical program. In order to determine the educational beliefs and level of teacher identity of the pre-service teachers, mean of their responseswascalculated. Then the normality test was performed to determine whether the data related to educational beliefs and teacher identity of pre-service teachers demonstrateda normal distribution. First, Kolmogorov Smirnov test was used becuse the size of the sample is greater than 35 (McKillup, 2012). The values obtained from Kolmogorov-Smirnov test were significant for the sample. However, Field (2009) stated that to calculate z-scores related to skewness and kurtosis coefficients gives more reliable results for determining the normality because Kolmogorov-Smirnov test show a conservative structure. According to z-scores the data showed a normal distrbution related to educational beliefs and teacher identity of pre-service teachers. So, a group of statistical analyses were conducted as follows:
- Independent samples t-test to determine whether the pre-service teachers' educational beliefs and teacher identity showed a significant difference in terms ofgender;
- One way ANOVA test to determine whether the pre-service teachers' educational beliefs and teacher identity showed a significant difference in terms of grade and department variables;
- Pearson correlation test was conducted to determine whether there was a significant correlation between the pre-service teachers' educational beliefs and teacher identity;
- Multicollinear regression test to determine whether the pre-service teachers' educational beliefs significantly predicted their teacher identities.

**Findings**

In the first problem of the study, means of the responses to the whole scale and dimensions were calculated in order to determine the level of the pre-service teachers' educational beliefs and teacher identity. The mean scores are shown in Table 2.

Table 2. Descriptive Statistics on Educational Beliefs and Teacher Identity

| Dimension | f | Minimum | Maximum | $\overline{x}$ | S.D. |
|---|---|---|---|---|---|
| **Progressivism** | 324 | 16,00 | 65,00 | 56,54 | 7,25 |
| **Existentialist Education** | 324 | 7,00 | 35,00 | 31,54 | 4,09 |
| **Re-constructionism** | 324 | 8,00 | 35,00 | 28,29 | 4,14 |
| **Perennialism** | 324 | 9,00 | 40,00 | 31,88 | 4,85 |
| **Essentialism** | 324 | 5,00 | 25,00 | 13,22 | 4,02 |
| **Teacher Identity** | 324 | 22,00 | 85,00 | 69,48 | 10,65 |

When the findings in Table 2 were examined, it can be stated that the pre-service teachers showed the highest participation in the belief in existential education. Moreover, the pre-service teachers showed participation in the belief in progressivism at "totally agree" level and in re-constructionism and perennialism at "agree" level. However, the pre-service teachers showed a participation in the belief in essentialism at "undecided" level. It can be stated that the items of the scale related to essentialism often emphasize the teacher's authority and punishment. In spite of this, while the perennialist educational philosophy is a conservative philosophy, too, the items of the scale related to perennialism emphasize values education and the development of reasoning. So, the teacher candidates had a higher level in perennialist education belief than essentialist one.

When the dominant education belief of the pre-service teachers was examined, most of pre-service teachers showed participation in the belief in existential education (n=225). This is followed by the belief in progressivism (n=83), re-constructionism (n=38), perennialism (n=34), and essentialism (n=19) respectively. Also, the pre-service teachers' teacher identity levels were found to be at "agree" level. So, it can be said that the pre-service teachers had a high teacher identity level.

In the second problem of study, it was investigated whether educational beliefs and teacher identity differed significantly in terms of gender, grade, and department variables. First, the results related to gender are shown in Table 3.

Table 3. Differentiation of Educational Beliefs and Teacher Identity according to Gender

| Dimension | Gender | N | Mean | Std. Deviation | t | p |
|---|---|---|---|---|---|---|
| **Progressivism** | Female | 274 | 57,07 | 6,85 | 3,120 | .00* |
| | Male | 50 | 53,64 | 8,65 | | |
| **Existentialist Education** | Female | 274 | 31,93 | 3,80 | 4,084 | .00* |
| | Male | 50 | 29,42 | 4,94 | | |
| **Re-constructionism** | Female | 274 | 28,60 | 3,90 | 3,121 | .00* |
| | Male | 50 | 26,64 | 4,97 | | |
| **Perennialism** | Female | 274 | 32,19 | 4,54 | 2,188 | .03** |
| | Male | 50 | 30,22 | 6,07 | | |
| **Essentialism** | Female | 274 | 12,90 | 3,91 | -3,374 | .00* |
| | Male | 50 | 14,96 | 4,22 | | |
| **Teacher Identity** | Female | 274 | 70,20 | 10,51 | 2,880 | .00* |
| | Male | 50 | 65,54 | 10,64 | | |

*p<.05   ** Equal variances not assumed

When the findings in Table 3 are examined, it can be said that the pre-service teachers' all educational beliefs and teacher identity level differ significantly according to gender. It can be stated that the means determined in all dimensions are higher in favor of the female pre-service teachers except essentialist belief. In other words, the male pre-service teachers tend to participate in essentialist belief more than the female pre-service teachers. Also, the female pre-service teachers' teacher identity levels are higher than the male pre-service teachers.

In the third problem of the study, it was investigated whether educational beliefs and teacher identity differed significantly according to grade. The results of one way ANOVA test are shown in Table 4.

Table 4. Differentiation of Educational Beliefs and Teacher Identity according to Grade

| Dimension | Grade | N | Mean | F | df | p | Source of Difference |
|---|---|---|---|---|---|---|---|
| **Progressivism** | 1st Grade | 75 | 53,97 | 6,956 | 3 | .00* | 4-1; 4-2; 4-3 |
| | 2nd Grade | 50 | 56,02 | | | | |
| | 3rd Grade | 62 | 55,85 | | | | |
| | 4th Grade | 137 | 58,45 | | | | |
| **Existentialist Education** | 1st Grade | 75 | 30,26 | 4,491 | 3 | .00* | 4-1 |
| | 2nd Grade | 50 | 31,24 | | | | |
| | 3rd Grade | 62 | 31,53 | | | | |
| | 4th Grade | 137 | 32,36 | | | | |
| **Re-constructionism** | 1st Grade | 75 | 26,52 | 6,826 | 3 | .00* | 2-1; 3-1; 4-1 |
| | 2nd Grade | 50 | 29,42 | | | | |
| | 3rd Grade | 62 | 28,50 | | | | |
| | 4th Grade | 137 | 28,77 | | | | |
| **Perennialism** | 1st Grade | 75 | 30,24 | 4,581 | 3 | .03* | 4-1; 2-1 |
| | 2nd Grade | 50 | 32,36 | | | | |
| | 3rd Grade | 62 | 31,66 | | | | |
| | 4th Grade | 137 | 32,72 | | | | |
| **Essentialism** | 1st Grade | 75 | 13,66 | 2,867 | 3 | .00* | 1-4; 2-4; 3-4 |
| | 2nd Grade | 50 | 13,86 | | | | |
| | 3rd Grade | 62 | 13,83 | | | | |
| | 4th Grade | 137 | 12,46 | | | | |
| **Teacher Identity** | 1st Grade | 75 | 66,82 | 10,531 | 3 | .00* | 4-1; 4-2; 4-3 |
| | 2nd Grade | 50 | 68,86 | | | | |
| | 3rd Grade | 62 | 65,40 | | | | |
| | 4th Grade | 137 | 73,02 | | | | |

*p<.05

When the data in Table 4 are examined, it can be said that the pre-service teachers' all educational beliefs and teacher identity level differ significantly according to grade. It can be stated that the means determined in all dimensions and teacher identity are higher in favor of higher grade pre-service teachers except essentialist belief. In other words, as the grade increases, the teacher identity and educational beliefs of the pre-service teachers except essentialism are increasing.

After that, it was investigated whether educational beliefs and teacher identity differed significantly according to department. The results of one way ANOVA test are shown in Table 5.

Table 5. Differentiation of Educational Beliefs and Teacher Identity according to Department

| Dimension | Department | N | Mean | F | df | p | Source of Difference |
|---|---|---|---|---|---|---|---|
| **Progressivism** | Pre-School | 153 | 58,58 | 8,805 | 3 | .00* | 1-3; 1-4 |
| | Primary School | 22 | 56,00 | | | | |
| | Social Sciences | 79 | 54,00 | | | | |
| | Mathematics | 70 | 55,12 | | | | |
| **Existentialist Education** | Pre-School | 153 | 32,39 | 4,289 | 3 | .00* | 1-3; 1-4 |
| | Primary School | 22 | 31,04 | | | | |
| | Social Sciences | 79 | 30,68 | | | | |
| | Mathematics | 70 | 30,82 | | | | |
| **Re-constructionism** | Pre-School | 153 | 28,78 | 2,419 | 3 | .06 | |
| | Primary School | 22 | 26,86 | | | | |
| | Social Sciences | 79 | 27,59 | | | | |
| | Mathematics | 70 | 28,48 | | | | |
| **Perennialism** | Pre-School | 153 | 32,65 | 2,595 | 3 | .05 | |
| | Primary School | 22 | 30,81 | | | | |
| | Social Sciences | 79 | 31,05 | | | | |
| | Mathematics | 70 | 31,50 | | | | |
| **Essentialism** | Pre-School | 153 | 12,36 | 4,554 | 3 | .00* | 3-1; 4-1 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | Primary School | 22 | 13,95 | | | | |
| | Social Sciences | 79 | 13,89 | | | | |
| | Mathematics | 70 | 14,10 | | | | |
| | Pre-School | 153 | 72,98 | | | | |
| **Teacher Identity** | Primary School | 22 | 66,63 | 12,181 | 3 | .00* | 1-2; 1-3; 1-4 |
| | Social Sciences | 79 | 65,20 | | | | |
| | Mathematics | 70 | 67,57 | | | | |

*p<.05

When the data in Table 5 are examined, it can be said that the pre-service teachers' progressivism, existentialism, and essentialism educational beliefs and teacher identity level differ significantly according to department. It can be stated that the means determined in teachers' progressivism and existentialism educational beliefs and teacher identity are higher in favor of pre-school pre-service teachers than social sciences and mathematics pre-service teachers. Also, pre-school pre-service teachers' teacher identity levels are higher than primary school pre-service teachers. In essentialist belief, social sciences and primary school pre-service teachers' beliefs are higher than pre-school pre-service teachers.

After that, it was investigated whether there was a significant correlation between educational beliefs with teacher identity. The results of Pearson correlation test are shown in Table 6.

Table 6. Correlation between Educational Beliefs and Teacher Identity

| | **1** | **2** | **3** | **4** | **5** | **6** |
|---|---|---|---|---|---|---|
| **1. Teacher Identity** | 1,00 | | | | | |
| **2. Progressivism** | ,481** | 1,00 | | | | |
| **3. Existentialism** | ,481** | ,864** | 1,00 | | | |
| **4. Re-constructionism** | ,298** | ,684** | ,639** | 1,00 | | |
| **5. Perennialism** | ,378** | ,649** | ,600** | ,725** | 1,00 | |
| **6. Essentialism** | -,181** | -,126** | -,171* | ,154** | ,185** | 1,00 |

**Correlation is significant at the 0.01 level (2-tailed).

When the results in Table 6 are examined, it can be said that there is a significant and positive correlation between the pre-service teachers' educational beliefs and teacher identity except essentialism. The highest correlation is found between teacher identity and existentialist belief (r=.481; p<.01), and the lowest one is found between teacher identity and essentialist belief (r=-.181; p<.01). All correlation coefficients are found to be significant.

After that, multiple regression analysis was conducted to determine whether teachers' educational beliefs significantly predicted their teacher identities. The results of the analysis of variance related to regression analysis are shown in Table 7.

Table 7. The Results of The Analysis of Variance related to the Prediction of Teacher Identity

| **Model** | **Sum of Squares** | **df** | **Mean Square** | **F** | **p** |
|---|---|---|---|---|---|
| **Regression** | 7891,517 | 4 | 1972,879 | 23,971 | ,00* |
| **Residual** | 25925,371 | 315 | 82,303 | | |

When the Table 7 is examined, it can be stated that the model established for the prediction of the teacher identity of the pre-service teachers by the progressivism, existentialism, re-constructionism, and perennialism educational beliefs is meaningful ($F_{(4,315)}$=23,971; p<.01). After that, the findings of multicollinear regression analysis between the education beliefs and teacher identity concept were given in Table 8.

Table 8. The Results of Regression Analysis on the Prediction of Teacher Identity by Educational Beliefs

| **Predictive Variables** | **B** | **Std. Error** | **β** | **t** | **p** | **Zero-order** | **Partial** |
|---|---|---|---|---|---|---|---|
| **(Constant)** | 21,368 | 5,282 | | 4,045 | ,00* | | |
| **Progressivism** | ,436 | ,151 | ,253 | 2,891 | ,00* | 0,441 | 0,161 |
| **Existentialism** | ,757 | ,254 | ,245 | 2,986 | ,00* | 0,438 | 0,166 |
| **Re-constructionism** | -,449 | ,195 | -,164 | -2,300 | ,02* | 0,227 | -0,129 |
| **Perennialism** | ,382 | ,159 | ,165 | 2,399 | ,01* | 0,315 | 0,134 |

R=,483; $R^2$=, 233;
$F_{(4,315)}$=23,971; p<.01

According to the analysis, while the model is significant as a whole [$F_{(4,315)}=23,971$; $p<.01$], progressivism educational belief ($\beta = .253$) is found out to be the most important dimension in the model that explained the teacher identity. These four variables, together, account for 23% of the change in teacher identity level of the pre-service teachers. The relative order of importance of the dimensions in the regression model is seen as existentialism ($\beta = .245$) and perennialism ($\beta = .165$) educational beliefs. These education beliefs were found out to be satisfactorily significant. Besides, re-constructionism ($\beta = .164$) educational belief was found to be significant but non-linear for the prediction of teacher identity. This suggests that teacher identity level of pre-service teachers is strongly explained by education beliefs such as progressivism, existentialism, and, perennialism.

According to the findings, regression equation of pre-service teachers' teacher identity was as follows;
Teacher Identity=21,368+0,253*Progressivism+0,245*Existentialism+0,165*Perennialism-0,164*Re-constructionism

## Discussion and Conclusion

A portion of the research conducted in Turkey about educational beliefs were aimed at determining teachers' and pre-service teachers' educational philosophies and beliefs (Altınkurt, Oğuz & Yılmaz, 2012; Çetin, İlhan & Arslan, 2012; Doğanay, 2011; Doğanay & Sarı, 2003; Ekiz, 2005; 2007; Geçici & Yapıcı, 2008), and some of them were related to associating educational beliefs with various variables. For example, there are studies in the literature about teachers' and pre-service teachers' educational philosophy and learning styles/strategies (Duman, 2008); epistemological beliefs and attitudes towards teaching profession (Önen, 2011); teacher-student relations (Yılmaz & Tosun, 2013); teaching strategies (Çoban, 2002); and, effective teacher behaviors and beliefs about classroom management (Okut, 2011). This study investigated the relation between pre-service teachers' educational beliefs and teacher identity and the extent to which teacher identities of pre-service teachers were predicted by their educational beliefs. The study also tried to determine whether these two variablesdiffered significantly in terms of gender, grade, and department variables.

In line with the findings, the pre-service teachers' dominant educational philosophies were determined as existentialism, progressivism, re-constructionism, perennialism, and essentialism, respectively. From this point of view, it can be stated that pre-service teachers prefer existentialism and progressivism in which the individual's and society's interests, needs, and expectations are taken into consideration rather than the philosophies of perennialism and essentialism that emphasize the traditional understanding in education. On the other hand, in the study, it was determined that the pre-service teachers were more involved in the philosophy of perennialism which emphasized culture transfer and values education rather than the essentialist philosophy emphasizing teacher's authority, memorization and repetition processes, and strict discipline. In Yılmaz and Tosun's (2013) research in which teachers adopted the most existential, progressive, perennialist, re-constructive and essentialist educational philosophies respectively coincides with the findings of the research.

When other studies conducted on different sample groups are examined, it is seen that the educational philosophies adopted by the teachers differ slightly, but in general, the findings of the current research show similarities. In the other studies (Altınkurt et. al., 2012; Ilgaz, Bülbül & Çuhadar, 2013; Koçak, Ulusoy & Önen, 2012; Oğuz, Altınkurt, Yılmaz & Hatipoğlu, 2014; Şahin, Tunca & Ulubey, 2014; Uğurlu & Çalmaşur, 2017), although it was determined that the education beliefs of the pre-service teachers were based on the existentialist education philosophy, the philosophy of existentialism was adopted at least in the research of Tekin and Üstün (2008) and at medium-level in the research of Doğanay and Sarı (2003). When the findings of the studies were examined, it was very important that the pre-service teachers adopted the principles of existentialism that reflects the current understanding of education. The philosophy of existentialism serves as an important roadmap for education systems aiming at transformation and equal opportunity in education.

According to the findings of this research, teacher identity of the pre-service teachers was found to be high. Teachers' perceptions of teacher identity as the basis of their beliefs as well as their educational beliefs directly affect instructional activities. In this respect, it can be stated that pre-service teachers feel themselves ready for the teaching profession and are motivated to do this profession. However, prospective teachers also think that they possess many of the cognitive and affective skills required by the teaching profession. Considering the literature, it has been determined that pre-service teachers from different grades and departments have positive/high teacher identity and proficiency belief (Akbulut, 2006; Aydın & Boz, 2010; Büyükduman, 2006; Diken, 2006; Erişen & Çeliköz, 2003; Gencer & Çakıroğlu, 2006; Gerçek, Yılmaz, Köseoğlu & Soran, 2006; Küçükyılmaz & Duban, 2006; Savran & Çakıroğlu, 2001; Uygur, 2010; Ülper & Bağcı, 2012; Yıldırım, 2011).

According to the findings, there was a significantand positive relationship between education beliefs and teacher identities, except for essentialist belief. At this point, it can be stated that teacher identity of pre-service teachers are generally fed by philosophies that center the student and emphasize the individual differences of the student. In this context, it is possible that the intense and continuous emphasis on constructivism philosophy in education faculties creates significant differences in students' understanding. According to this philosophy, in order to prevent the student from having a passive identity in the learning environment, the teacher should offer choices in which the student can gain competence and can effectively participate in the learning process in line with the evolving tendencies of the teacher's identity rather than an authoritarian and disciplinary understanding.

It is seen that these principles, which are considered important in the context of contemporary philosophies, are considered by pre-service teachers as an important element of their teaching identity. Similar to the findings of this study, Altınkurt, Oğuz, and Yılmaz (2012) found that the dimensions in which teachers participated most were the dimensions of existentialism, progressivism, perennialism, re-constructionism, and essentialism, respectively.

As a result of the findings obtained from the research, the pre-service teachers 'educational beliefs and teacher identities differed significantly according to gender (p <.05). It is seen that these differences are in favor of female pre-service teachers except for the essentialism philosophy. In line with these findings, it is noteworthy that female teacher candidates adopt contemporary educational philosophies more and male teacher candidates adopt stricter educational philosophies. Similar to the findings of the study, in the study conducted by Beytekin and Kadı (2015), a significant relationship was found between teacher education beliefs and value scores according to gender variable. Additionally, female teacher trainees' scores of progressivism, existentialism, and re-constructionism were higher than male teacher candidates' scores; but, for essentialist and perennialist beliefs, the situation is exactly the opposite. In the study, it was stated that the effect of factors may be in question such as home and previous school settings on the view of female pre-service teachers as a justification for the relevant situation.

In another study, Yılmaz and Tosun (2013) found that although the views of the participants related to progressivism and re-constructionism did not change according to gender, essentialist, perennialist, and existentialist beliefs changed according to gender. While male teachers had higher participation in perennialist and essentialist beliefs, female teachers had higher participation in existentialist education philosophy. In other words, male teachers adopt permanent and fundamentalist education philosophies that emphasize the characteristics of hard work, control, teacher centeredness, and preparation for life at a higher rate than female teachers. Accordingly, it can be said that male teachers advocate a more rigid educational process than female teachers. The fact those female teachers' opinions about existential education are more positive than male teachers can be considered as a parallel finding.

In the related literature, there is information that male teachers are more controlling, authoritarian, coercive, and aggressive than female teachers (Savran & Çakıroğlu, 2004; Zaremba & Fluck, 1995). In the study conducted by Oğuz, Altınkurt, Yılmaz, and Hatipoğlu (2014), a significant difference was found in educational beliefs of the teachers according to gender in favor of female teachers in the existentialist belief dimension. However, in spite of the findings obtained from this study, Çetin, İlhan, and Arslan (2012) found that gender was not an effective variable on the educational philosophies adopted by pre-service teachers.

According to the findings of this study, the pre-service teachers' educational beliefs and teacher identities differed significantly according to the grade variable. Apart from essentialism, it was found that the difference was in favor of the upper classes. In parallel with the findings of the study, Ekiz (2005) compared the educational beliefs of the first and fourth year students and determined that the first year students adopted the philosophies of perennialism and essentialism more, and the fourth year students adopted the philosophies of progressivism and re-constructivism more.

Çetin, İlhan and Arslan (2012) found that grade variable had a statistically significant effect on the level of pre-service teachers' adoption of traditional and contemporary educational philosophies. Unlike this study, Çakmak, Bulut, and Taşkıran (2016) did not find any significant difference in existentialism, progressivism, re-constructionism, and essentialism education beliefs according to grade variable. A significant difference was found between first with second grade, third grade and fourth grade in favor of first grade for the belief in perennialist education. In a study conducted by Biçer, Er, and Özel (2013), it was determined that while social studies pre-service teachers adopted the philosophy of perennialist education in the first years of the university, their beliefs in this philosophy of education decreased when they came to the last years.

Based on this finding, the fact that pre-service teachers are faced with the education environment in which essentialist and perennialist philosophy are kept at the forefront at secondary level can be considered as the reason behind the adoption of traditional educational philosophies in the first years of undergraduate education. However, the courses such as Classroom Management, Teaching Principles and Methods, Special Teaching Methods, Instructional Technologies and Material Design, Teaching Practice which are included in the third and fourth grade curriculum of undergraduate education and emphasize the necessity of contemporary philosophy help them adopt contemporary educational philosophies.

As a result of the findings obtained from this research, the pre-service teachers' educational beliefs and teacher identities differed significantly according to the department variable except for the re-constructivist and perennialist beliefs. In terms of educational beliefs, social studies and mathematics pre-service teachers adopted essentialist belief higher than pre-school pre-service teachers. In the progressivism and existentialism belief, pre-school pre-service teachers were higher than social studies and mathematics pre-service teachers.

Furthermore, it was determined that pre-school pre-service teachers had a higher level of teacher identity than social studies, mathematics, and classroom pre-service teachers. There are several reasons why pre-school and classroom teachers have a higher level of skill compared to other branches.

It can be thought that primary and especially pre-school curricula are convenient to use contemporary philosophies in terms of being flexible and convenient to use alternative methods and thus providing opportunities for teachers to make different decisions and implement them. At the same time, the interdisciplinary structure of the curriculums related to these branches provides the connection of subjects and achievements with many courses and thus the principles of contemporary philosophies are effective in the teaching process. In the context of assessment and evaluation, pre-school and classroom teachers can use more flexible and alternative methods (portfolio, and, so on.) than other branches. On the other hand, there is a more rigorous curriculum and measurement and evaluation process especially in mathematics and social studies. At the same time, all these factors develop pre-school pre-service teachers' identities, too. Köstekçi (2016) also have stated that classroom teachers who have the opportunity to interact with all students from the beginning of their education life more easily adopt an approach appropriate to the contemporary beliefs and offer more effective teaching.

According to the analysis, while the model was significant as a whole [$F(4,315)=23,971$; $p<.01$], progressivism educational belief ($\beta = .254$) was found out to be the most important dimension in the model that explained the teacher identity. These four variables, together, accounted for 23% of the change in teacher identity level of pre-service teachers. The relative order of importance of the dimensions in the regression model was seen as existentialism ($\beta = .245$) and perennialism ($\beta = .159$) educational beliefs. This suggests that teacher identity level of pre-service teachers is strongly explained by education beliefs such as progressivism, existentialism, perennialism, and re-constructivism. Especially, the fact that many elements of today's education system stem from the philosophy of progressivism and the emphasis on this philosophy in theoretical and practical processes in the faculties of education can be considered as the rationale of the model for predicting.

At this point, it can be suggested to create processes and learning environments that pre-service teachers can make reflections about their educational beliefs. thus, they will be aware of their educational beliefs and realize how these beliefs affect their decisions and actions in the educational process. Besides, the determination of pre-service teachers' and teachers' educational beliefs and their relationship with elements such as teacher identity, teacher effectiveness and teacher roles should be revealed with a deeper perspective.

## References

Akbulut, E. (2006). Müzik öğretmeni adaylarının mesleklerine ilişkin öz yeterlik inançları [Self-efficacy beliefs of music teacher candidates related to their profession]. *Yüzüncü Yıl Üniversitesi Eğitim Fakültesi Dergisi, 3*(2), 34-44.

Altınkurt, Y., Yılmaz, K. & Oğuz, A. (2012). İlköğretim ve ortaöğretim okulu öğretmenlerinin eğitim inançları [Educational beliefs of primary and secondary school teachers]. *Ondokuz Mayıs Üniversitesi Eğitim Fakültesi Dergisi, 31*(2), 1-19.

Arpacı, D. & Bardakçı, M. (2015). Adaptation of early teacher identity measure into Turkish. *Gaziantep University Journal of Social Sciences, 14*(3), 687-719.

Aydın, S. & Boz, Y. (2010). İlköğretim fen bilgisi öğretmen adaylarının fen öğretimi ile ilgili öz-yeterlik inançları ve öz-yeterlik inançlarının kaynakları [Pre-Service elementary science teachers' science teaching efficacy beliefs and their sources]. *İlköğretim Online, 9*(2), 694-704.

Bandura, A. (2006). Guide for constructing self-efficacy scales. In T. Urdan & F. Pajares (Eds.), *Self-efficacy beliefs of adolescents* (pp. 307-337). Greenwich: CT Information Age.

Baydar, S. C. & Bulut, S. (2002). Öğretmenlerin matematiğin doğası ve öğretimi ile ilgili inançlarının matematik eğitimindeki önemi [Importance of teachers' beliefs about nature of mathematics and teaching of mathematics in mathematics education]. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, 23, 62-66.

Beytekin, O. F. & Kadı, A. (2015). Öğretmen adaylarının eğitim inançları ve değerleri üzerine bir çalışma [A study on the values and educational beliefs of student teachers]. *The Journal of Academic Social Science Studies, 31*(1), 327-341.

Biçer, B., Er, H. & Özel, A. (2013) Öğretmen adaylarının epistemolojik inançları ve benimsedikleri eğitim felsefeleri arasındaki ilişki [The relationship between the epistemologıcal beliefs and educational philosophies of the teacher candidates adopted]. *Eğitimde Kuram ve Uygulama, 9*(3), 229-242.

Bozdoğan, A. E., Aydın, D. & Yıldırım, K. (2007). Öğretmen adaylarının öğretmenlik mesleğine ilişkin tutumları [Attitudes of teacher candidates towards teaching professıon]. *Ahi Evran Üniversitesi Kırşehir Eğitim Fakültesi Dergisi, 8*(2), 83-97.

Brauner, C. J. & Burns, H. W. (1982). Eğitim felsefesi [Philosophy of education]. (S. Büyükdüvenci, Trans.), *Ankara Üniversitesi Eğitim Bilimleri Fakültesi Dergisi, 15*(2), 291-298.

Bulut, İ. (2009). Öğretmen adaylarının öğretmenlik mesleğine ilişkin tutumlarının değerlendirilmesi (Dicle ve Fırat üniversitesi örneği). [Evaluation of teacher candidates' attitudes concerning teaching profession (Dicle and Firat university sample)]. *Dicle Üniversitesi Ziya Gökalp Eğitim Fakültesi Dergisi,* 14, 13-24.

Bulut, H. & Doğar, Ç. (2006). Öğretmen adaylarının öğretmenlik mesleğine karşı tutumlarının incelenmesi [Examination of teacher candidates' attitudes towards teaching profession]. *Erzincan Eğitim Fakültesi Dergisi, 8*(1), 13-27.

Büyükduman, G. F. (2006). *İngilizce öğretmen adaylarının İngilizce ve öğretmenlik becerilerine ilişkin öz-yeterlik inançları arasındaki ilişki [The relationship between pre-service English teachers' self-efficacy beliefs about English and teaching skills]*. (Unpublished Doctoral Dissertation), Yıldız Teknik University, İstanbul.

Büyüköztürk, Ş., Kılıç Çakmak, E., Akgün, Ö. E., Karadeniz, Ş. & Demirel, F. (2013). *Bilimsel araştırma yöntemleri [Scientific research methods]* (15th Edition). Ankara: Pegem Akademi Yayıncılık.

Cevizci, A. (2012). *Bilgi Felsefesi [Philosophy of knowledge]*. İstanbul: Say Yayınları.

Çakmak, Z., Bulut, B. & Taşkıran, C. (2016). Sosyal bilgiler öğretmen adaylarının eğitim inançlarına yönelik görüşlerinin çeşitli değişkenler açısından incelenmesi [A study on the opinions of social studies field pre-service teachers on educational beliefs]. *Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi, 16,* (USBES Özel Sayı II), 1190-1205.

Çapa, Y. & Çil, N. (2000). Öğretmen adaylarının öğretmenlik mesleğine yönelik tutumlarının farklı değişkenler açısından incelenmesi [Examining the prospective teachers' attitudes towards teaching profession in terms of different variables]. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi,* 18, 67-73.

Çetin, B., İlhan, M. & Arslan, S. (2012). Öğretmen adaylarının benimsedikleri eğitim felsefelerinin çeşitli değişkenler açısından incelenmesi [An investigation of educational philosophies adopted by prospective teachers in terms of various variables]. *The Journal of Academic Social Science Studies, 5*(5), 149-170.

Çoban, A. (2002). Sınıf öğretmenliği öğretmen adaylarının, eğitim sürecine ilişkin felsefi tercihlerinin değerlendirilmesi [Evaluation on classroom teachers candidate's philosophical preferences in educational process]. *Cumhuriyet Üniversitesi Sosyal Bilimler Dergisi, 26*(2), 311–318.

Deryakulu, D. (2008). *Bilişim teknolojileri öğretiminde sosyo-psikolojik değişkenler [Socio-psychological variables in information technologies teaching]*. Ankara: Akademi Yayınları.

Diken, G. (2006). Öğretmen adaylarının yeterliği ve zihinsel engelli öğrencilerin kaynaştırılmasına ilişkin görüşleri [Pre-service teachers' opinions about competence and inclusion of mentally retarded students]. *Eurasian Journal of Educational Research, 23*, 72-81.

Doğanay, A. (2011). Hizmet öncesi öğretmen eğitiminin öğretmen adaylarının felsefi bakış açılarına etkisi [The effect of pre-service teacher education on the educational philosophies of prospective teachers]. *Eğitim ve Bilim, 36*(161), 332-348.

Doğanay, A. & Sarı, M. (2003). İlköğretim öğretmenlerinin sahip oldukları eğitim felsefelerine ilişkin algıların değerlendirilmesi: Öğretmenlerin eğitim felsefeleri [Evaluation of elementary school teachers' perceptions about their own educational philosophies]. *Türk Eğitim Bilimleri Dergisi, 1*(3), 321–337.

Duman, B. (2008). Öğrencilerin benimsedikleri eğitim felsefeleriyle kullanıldıkları öğrenme strateji ve öğrenme stillerinin karşılaştırılması [Comparison of learning strategies and learning styles that students use with their educational philosophies]. *Çukurova Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 17*(1), 203-224.

Ekiz, D. (2007). Öğretmen adaylarının eğitim felsefesi akımları hakkında görüşlerinin farklı programlar açısından incelenmesi [An investigation of student-teachers' views of educational philosophies from the angle of different teacher education programs]. *Ondokuz Mayıs Üniversitesi Eğitim Fakültesi Dergisi,* 24, 1-12.

Ekiz, D. (2005). Sınıf öğretmeni adaylarının eğitim felsefesi akımlarına ilişkin eğilimlerinin karşılaştırılması [Comparison of the tendency of prospective classroom teachers towards educational philosophy trends], *Ondokuz Mayıs Üniversitesi Eğitim Fakültesi Dergisi,* 19, 1-11.

Erişen, Y. & Çeliköz, N. (2003) Öğretmen adaylarının genel öğretmenlik davranışları açısından kendilerine yönelik yeterlilik algıları [The self-perception on competency of the prospective teachers in terms of general teacher behaviors]. *Türk Eğitim Bilimleri Dergisi, 1*(4), 427-440.

Field, A. (2009). *Discovering statistics using* SPSS (Third Edition). London: SAGE Publications.

Friesen, M. D. & Besley, S. C. (2013). Teacher identity development in the first year of teacher education: A developmental and social psychological perspective. *Teaching and Teacher Education,* 36, 23-32.

Geçici, S. & Yapıcı, Ş. (2008). İlköğretim öğretmenlerinin eğitim felsefesiyle ilgili görüşleri [Primary school teachers' views on educational philosophy]. *Kuramsal Eğitimbilim, 1*(2), 57-64.

Gencer, A. S. & Çakıroğlu, J. (2007). Turkish preservice science teachers' efficacy beliefs regarding science teaching and their beliefs about classroom management. *Teaching and Teacher Education*, *23*(5), 664-675.

Gerçek, C., Yılmaz, M., Köseoğlu, P. & Soran, H. (2006). Biyoloji eğitimi öğretmen adaylarının öğretiminde öz-yeterlik inançları [Biology teaching self-efficacy beliefs of the teacher candidates]. *Ankara Üniversitesi Eğitim Bilimleri Fakültesi Dergisi, 39*(1), 57-73.

Gutek, G. L. (2001). Eğitime felsefi ve ideolojik yaklaşımlar [Philosophical and ideological approaches to education] (Çev. Nesrin Kale), Ankara: Ütopya Yayınları.

Hogg, M. A. & Vaughan, G. M. (2005). Sosyal psikoloji [Social psychology] (P. Yıldız & A. Gelmez, Trans.), Ankara: Ütopya Yayınevi.

Ilgaz, G., Bülbül, T. & Çuhadar, C. (2013). Öğretmen adaylarının eğitim inançları ile öz yeterlik algıları arasındaki ilişkinin incelenmesi [Investigation of the relationship between preservice teachers' educational beliefs and their perceptions of self-efficacy]. *Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi, 13*(1), 50-65.

Kağıtçıbaşı, Ç. (2010). Günümüzde insan ve insanlar: Sosyal psikolojiye giriş [People and people today: Introduction to social psychology] (12th Edition). İstanbul: Evrim Yayınevi.

Kaplan, A. (2008). *The collected works of John Dewey: The later works, 1925-1953: 1934, art as experience*. Southern Illinois University Press.

Karahan, E. (2003). *Öğretmen adaylarının öğretmenlik tutumları açısından incelenmesi [Examination of prospective teachers in terms of teaching attitudes.].* (Unpublished master's thesis), Marmara University, İstanbul.

Karasar, N. (2016). *Bilimsel araştırma yöntemi: Kavramlar, ilkeler, teknikler [Scientific research method: Concepts, principles, techniques]* (30th Edition). Ankara: Nobel Akademik Yayıncılık.

Kılıç, D. (2000). Eğitim programlarının felsefi boyutları. [Philosophical aspects of educational programs]. *IX. National Educational Sciences Congress,* 27-30, September, Erzurum.

Koçak, C., Ulusoy, M. F. & Önen, A. S. (2012). Öğretmen adaylarının kimlik işlevlerinin ve eğitim inançlarının incelenmesi. [Examining the teacher candidates' identity functions and educational beliefs.] *10. National Science and Mathematics Education Congress*, 27-30, June, Niğde.

Kop, Y. (2004). Progressivism ve progressivisme eleştirel bir yaklaşım. [Progressivism and a critical approach to progressivism]. *Kazım Karabekir Eğitim Fakültesi Dergisi,* 10, 270-288.

Köstekçi, E. (2016). *Öğretmen adaylarının girişimcilik özellikleri ile yansıtıcı düşünme düzeyleri arasındaki ilişkinin incelenmesi. [Examining the relationship between teacher candidates' entrepreneurship characteristics and reflective thinking levels]* (Unpublished master's thesis). Bartın University Institute of Educational Sciences.

Küçükyılmaz, E. A. & Duban, N. (2006). Sınıf öğretmeni adaylarının fen öğretimi öz-yeterlik inançlarının artırılabilmesi için alınacak önlemlere ilişkin görüşleri. [The opinions of primary teacher candidates on taking measures to increase science teaching self-efficacy beliefs] *Yüzüncü Yıl Üniversitesi Eğitim Fakültesi Dergisi, 3*(1), 1- 23.

McKillup, S. (2012). *Statistics explained: An introductory guide for life scientists* (Second edition). United States: Cambridge University Press.

Okut, L. (2011). İlköğretim fen ve teknoloji, matematik öğretmenlerinin eğitime ve sınıf yönetimine ilişkin inançları arasındaki ilişki [Primary school science and mathematic teachers' beliefs in terms of the relationship between education and classroom management]. *Pegem Eğitim ve Öğretim Dergisi, 1*(4), 39-51.

Oğuz, A., Altınkurt, Y., Yılmaz, K. & Hatipoğlu, S. (2014). Öğretmenlerin eğitim inançları ile öğrenen özerkliğini destekleme davranışları arasındaki ilişki. [The relationship between educational beliefs and learner autonomy support behaviors of teachers] *Turkish Journal of Educational Studies*, *1*(1), 37-78.

Oral, B. (2004). Eğitim fakültesi öğrencilerinin öğretmenlik mesleğine ilişkin tutumları. [Attitudes of the faculty of education students about the teaching profession] *Eğitim Araştırmaları Dergisi,* 15, 88-98.

Önen, A. S. (2011). The effect of candidate teachers' education and epistemological beliefs on proffesional attitudes, *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi,* 41, 293-301.

Savran, A. & Çakıroğlu, J. (2004). Preservice science teachers' orientations to classroom management. *Hacettepe University Journal of Education Faculty, 26*, 124-130.

Savran, A., & Çakıroğlu, J. (2001). Preservice biology teachers perceived efficacy beliefs in teaching biology. *Hacettepe Üniversitesi Eğitim Fakültesi Dergisi*, 21, 105-112.

Semerci, N. ve Semerci, Ç. (2004). Türkiye'de öğretmenlik tutumları [Teacher attitudes in Turkey]. *Fırat Üniversitesi Sosyal Bilimler Dergisi, 14*(1), 137-146.

Şahin, S., Tunca, N. & Ulubey, Ö. (2014). Öğretmen adaylarının eğitim inançları ile eleştirel düşünme eğilimleri arasındaki ilişki. [The relationship between pre-service teachers' educational beliefs and their critical thinking tendencies] *İlköğretim Online*, *13(*4), 1473-1492.

Tavşancıl, E. (2006). *Tutumların ölçülmesi ve SPSS ile veri analizi [Measurement of attitudes and data analysis with SPSS]* (3rd Edition). Ankara: Nobel Yayın Dağıtım.

Tekin, S. & Üstün, A. (2008). Amasya eğitim fakültesi öğretmen adaylarının eğitim süreci hakkındaki felsefi tercihlerinin tespiti. [Determination of the philosophical preferences of teacher candidates of Amasya Faculty of Education] *Selçuk Üniversitesi Ahmet Keleşoğlu Eğitim Fakültesi Dergisi*, 25, 145–158.

Temizkan, M. (2008) Türkçe öğretmeni adaylarının öğretmenlik mesleğine yönelik tutumları üzerine bir araştırma. [An evaluation on the attitudes of Turkish teacher candidates their professions] *Türk Bilimleri Dergisi, 6*(3), 461-486.

Uğurlu, C. & Çalmaşur, H. (2017). Öğretmenlerin ve öğretmen adaylarının eğitim inançlarına ilişkin görüşleri: Bir karma yöntem çalışması. [A comparative study of educatıonal beliefs of teachers and teacher candidates: A mixed method study]. *Adıyaman Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 9*(25), 231-273.

Uygur, M. (2010). *İngiliz dili eğitimi anabilim dalı lisans öğrencilerinin öz-yeterlik algılarının farklı değişkenlere göre incelenmesi.[Investigation of self-efficacy perceptions of undergraduate students of*

*English Language Department according to different variables]* (Unpublished master's thesis), Mersin University, Mersin.

Ülper, H. & Bağcı, H. (2012). Türkçe öğretmeni adaylarının öğretmenlik mesleğine dönük öz-yeterlik algıları. [Self efficacy perceptions of Turkish teacher candidates] *Turkish Studies, 7*(2), 1115-1131.

Varış, F. (1994). *Eğitimde program geliştirme teori ve teknikleri [Theory and techniques of curriculum development in education].* Ankara: Alkım Kitapçılık Yayıncılık.

Yıldırım, A. (2011). *Sınıf öğretmeni adaylarının meslekî öz-yeterlik algıları ile meslekî kaygı düzeyleri arasındaki ilişkinin incelenmesi.[Examining the relationship between professional self-efficacy and occupational anxiety levels of prospective classroom teachers]* (Unpublished master's thesis), Marmara University, İstanbul.

Yılmaz, K., Altınkurt, Y. & Çokluk, Ö. (2011). Eğitim inançları ölçeğinin geliştirilmesi: geçerlik ve güvenirlik çalışması. [Developing the educational belief scale: The validity and reliability study] *Kuram ve Uygulamada Eğitim Bilimleri, 11*(1), 335-350.

Yılmaz, T. & Tosun, M. F. (2013). Öğretmenlerin eğitim inançları ile öğretmen öğrenci ilişkilerine yönelik görüşleri arasındaki ilişki. [Relationship between teachers' educational belief and their views about teacher-student relationships]. *Eğitim ve Öğretim Araştırmaları Dergisi, 2*(4), 205-218.

Zaremba, S. B., & Fluck, S. E. (1995). Gender and patterns of communication. *9th Annual Conference on Undergraduate Teaching of Psychology*, Ellenville, NY. March 22-24, 1995. (ERIC No: ED389378).