Mevlana International Journal of Education (MIJE)
Vol. 4(1), pp. 212-227, 1 April, 2014
Available online at http://mije.mevlana.edu.tr/
http://dx.doi.org/10.13054/mije.13.76.4.1

# The Relationship Between the Achievement Goal Orientation and the Self Efficacy Beliefs of the Candidate Teachers

Nese Ozkal
*Akdeniz University, Alanya Education Faculty, Konaklı/Alanya/Antalya*

Vesile Yildiz Demirtas
*Dokuz Eylül University, Buca Education Faculty,*

Hale Kasap Sucuoglu
*Dokuz Eylül University, Buca Education Faculty,*

Cem Oktay Guzeller*
*Akdeniz University, Education Faculty*

**Article history**
**Received:**
06.11.2013

**Received in revised form:**
27.03.2014

**Accepted:**
30.03.2014

**Key words:**
Achievement goal orientations, self –efficacy beliefs, candidate teachers

The aim of this study is to investigate the relationship between the achievement goal orientations and self-efficacy beliefs of the candidate teachers. Moreover, another aim of the study is to determine whether the self-efficacy beliefs and the achievement goal orientations of the candidate teachers differ according to their gender, grades and departments. The study was carried out with the students of Faculty of Education who are studying at 2 and 4th grade of the departments Preschool Education, Primary School Education, Primary Science Education, Social Studies Education and Turkish Language Education at Dokuz Eylül University in the 2012-2013 Academic Years, Spring Term. The data for the study was gathered through the scales "Teacher Self-efficacy Scale" and "Achievement Goal Orientations Scale". Findings showed that achievement goal orientation was significantly and positively correlated with self-efficacy beliefs. Findings also indicated that the achievement goal orientation tendency was a significant predictor of student engagement, instructional strategies, classroom management, and total professional self-efficacy beliefs; and performance avoidance orientation was an important predictor of instructional strategies, classroom management, and total professional self-efficacy beliefs. Finally it was found ascertained that the professional self-efficacy beliefs of the candidate teachers didn't significantly differ according to their genders and the achievement goal orientations differed according to the gender, grade level, and the departments.

Correspondence: Oktay Guzeller, Akdeniz Üniversity, Education Faculty, cguzeller@gmail.com

## Introduction

The learners are motivated to gain a goal or do a task by approaching to the positive results or avoiding the negative events. While the ones that have the instinct of approaching try to obtain positive results, the ones that have the instinct of avoidance try to avoid the negative results (Elliot, 1999; Atkinson cited in: Darnon et al, 2007). Starting out from these two patterns, the achievement goal orientation theory, one of the most widely used theories to understand the student success instinct in the recent years, was developed. Achievement goal orientation can be defined as the instinct that the learners have to complete the given academic tasks, the belief, feeling, and the attributions on the basis of the learning goal (Ames, 1992). Achievement goal orientation specifies how the learner interprets the events and his/her own efficacy, and how she/he reacts (Dweck & Legett 1988).

The achievement goal orientations are dealt with as 2x2 mastery approach-avoidance and performance approach-avoidance in the literature. The ones with mastery approach orientations get themselves as reference and have the aim of gaining new knowledge and skills, even if they become unsuccessful, they do not yield, they are still determined, they do not compare themselves with others. The ones with performance approach orientations care what others think about them, they study not for themselves but to get the positive judgments of the others, therefore they always compare themselves with others, try to be better than them, and they compete with others. They try to seem intelligent and skillful. The learners with performance avoidance orientations also care what others think about them. Since the performance avoidance orientation is based on a high level of success fear and low level of competence expectancy, the learners are focused more on being unsuccessful. These learners want to avoid the others' negative judgments. They do not want to seem as unsuccessful and incompetent. In order to avoid this, they keep away from the tasks that exceed their capacities and that they think they cannot do. They show low level of interest and performance to the tasks. They refuse to get responsibilities and they avoid tasks. The ones with the mastery avoidance orientations are the perfectionist learners that avoid doing mistakes in the tasks given and worry about not being able to learn the subjects (Ames, 1992; Chan et al., 2012; Dweck & Leggett, 1988; Elliot, 1999, Barron& Harackiewicz, 2003, Hsieh et al., 2008; Kaplan et al., 2002; Pintrich; 1999; Schunk; 1994).

When the literature is reviewed, it is seen that the mastery approach orientation has positive relations with many compatible variables such as effort, academic success, strategy use, rapport, strategies to actively cope with stress, self-perception, seeking social support, problem focused coping, self-compassion, self-kindness, common humanity, mindfulness, decisiveness, participation to the lesson, and self-efficacy (Ames, 1992; Akın 2008a; Barron & Harackiewicz, 2003; Çetin & Akın, 2009, Dweck & Legget, 1988; Gerthardt & Brown, 2006; Hsieh et al.; 2008; Odacı et al., 2013; Özkal, 2013, Wolters et al., 1996; Pitrich, 1999) and it has negative relations with incompatible variables such as self-judgment, isolation, and over- identification, depression, anxiety and stress, passively dealing with stress, and avoiding tasks (Akın, 2008a, Akın, 2008b, Çetin & Akın, 2009). Mastery avoidance orientation has positive relations both with the compatible variables such as self-kindness, common humanity, and mindfulness (Akın, 2008a), and with the incompatible variables such as self-judgment, isolation, over-identification, depression, and anxiety and stress (Akın, 2008a; Akın, 2008b). Performance approach and avoidance has positive relations with incompatible variables such as passively dealing with stress, avoidance of tasks, self-judgment, isolation and over-identification, depression, anxiety and stress (Akın, 2008a; Akın, 2008b; Çetin & Akın 2009; Barron & Harackiewicz, 2003). Moreover, the studies that show the positive relations between performance avoidance and the compatible variables like metacognitive

skills (Kahraman, 2011; Sungur & Şenler, 2009) and between performance approach and the compatible variables such as academic success (Kahraman, 2011; Chan et al., 2012) are also present in the literature. Although the results of the studies differ because of the subject, task difficulty, cultural factors, when the studies done are examined in general, it is seen that the results related to mastery orientations are more positive compared to the others, and the learners with mastery approach orientations have the ideal student features. There are many factors for learners to internalize their achievement goal orientations. Self- efficacy is one of these. Self-efficacy belief is one's belief on his/her self-skills to successfully undertake and perform a specific task within a specific context (Bandura, 1997). Self-efficacy and an individual's being aware of his/her capabilities also affect his/her desire to achieve the given goals (Hsieh et al., 2008). Self-efficacy beliefs motivate learners to learn through self-supervision processes such as setting goals, monitoring oneself, evaluating his/her own, and strategy use. Self-efficacy belief affects the effort given, resistance in difficult moments, and performance. The learners with high levels of self-efficacy beliefs are better at dealing with the difficulties and more tenacious on achieving a target. The ones with low self-efficacy have the judgment that they will not be able to achieve their targets. They exaggerate the problems and get stressed. These learners might be unsuccessful when they have doubts about their own performances or when they have low levels of motivations even if they have the necessary knowledge and skills (Bandura, 1994; Schunk & Meece, 2006; Zimmerman, 2000). It has been figured out that, in general, the ones with high self-efficacy have the approaching orientation, and the ones with low self-efficacy have the avoidance orientation (Akın, 2008b; Odacı et al., 2013; Gerthardt & Brown, 2006; Hsieh et al., 2007; Kahraman, 2011). It is also emphasized that as the learners study on the given task and as they show progress, their self-efficacy beliefs are supported too. However, the learners' self-efficacy beliefs decrease when they compare themselves with others and have difficulties (Schunk, 1994). Therefore, self-efficacy belief and achievement goal orientation affect each other.

Other factors in internalizing the achievement goal orientations are the teachers and the families. (Eccles & Wigfield, 2000, 2002 cited in Kahraman 2011; Pitrich, 1999). The mastery orientations gained from the teachers are related to the students' own mastery orientation goals (Kahraman, 2011). The studies done also show that the atmosphere of the class is related to the achievement goal orientations of the learners. It was found out that the mastery orientation is related to mastery approach tendency with the goal oriented classes, and the performance approach and performance avoidance orientations are related to the performance based class environments. The students who consider classes as mastery oriented have high-level of participation and evaluations. However, the ones that have a high level of performance orientation have lower levels of participation and evaluation. (Barron & Harackiewicz, 2003; Wolters, 2004). The one that determines the classroom atmosphere is the teacher (Gage & Berliner cited in: Açıkgöz, 2012). Kahraman (2011) has found out that there is a positive relation between the teachers' mastery oriented perception and the students' metacognitive strategy uses. It is found out that, when the students think that their teachers care about having high grades, when they think their teachers are performance oriented, they tend to blame others, disregard being unsuccessful, and use the incompatible strategies like denial and not being able to overcome more.

In this sense, it can be concluded that the teachers' achievement goal orientations and self-efficacy beliefs are important to determine the learners' achievement goal orientations. The teacher self-efficacy belief, which can also be defined as the capacity to affect the students' performance is directly related to the student success (Akkoyunlu et al., 2005; Bandura 1997). The self-efficacy belief of a teacher is effective in preparing a learning environment that

supports the cognitive development of the students and raising the students' motivation on learning (Midgley et al., 1989). The teachers with high levels of efficacy belief tend to try to find out better ways of teaching, to be more organized, to use new teaching materials, and use new teaching methods (Allinder 1994 cited in Gorozidis & Papaioannou, 2011).

When the explanations given above and the results of the study are examined together, it has been considered that it will contribute to the literature to examine the relation between the candidate teachers' achievement goal orientations and self-efficacy beliefs. Thus, the following questions were tried to be answered in this study:

(1) Do the candidate teachers' achievement goal orientations significantly differ according to their genders, grade levels, and departments?
(2) Do the candidate teachers' professional self-efficacy beliefs significantly differ according to their genders, grade levels, and departments?
(3) What are the relations between the candidate teachers' achievement goal orientations and their professional self-efficacy beliefs?
(4) Do the achievement goal orientations of the candidate teachers predict their professional self-efficacy beliefs?

## Method

### *Participants*

The study was carried out with the students of Faculty of Education who are studying at 2 and 4$^{th}$ grade of the departments Preschool Education, Primary School Education, Primary Science Education, Social Studies Education and Turkish Language Education at Dokuz Eylül University in the 2012-2013 Academic Years, Spring Term. The participants consist of 292 girls (65.3%) and 155 boys (34.7%), 447 candidate teachers in total. 85 (19%) of the candidate teachers were studying to be Turkish teachers, 87 (19.5%) of them were studying to be Classroom teachers, 87(19,5%) of them were studying to be Science teachers, 80 (17.9%) of them were studying to be Social Studies teachers, and 108 (24.2%) of them were studying to be Preschool teachers. 195 (43.6%) of the candidate teachers were at the 2$^{nd}$ grade and 252 (56.4%) of them were 4$^{th}$ grade students.

### *Instruments*

As data collection tools, 'Teacher Self-efficacy Scale' and '2x2 Achievement Goal Orientations Scale' were used.

#### *2x2 Achievement Goal Orientations Scale*

'2x2 Achievement Goal Orientations Scale' which was developed by Akın (2006), was used in order to evaluate the candidate teachers' achievement goal orientations. 2x2 Achievement Goal Orientations Scale is a 5 point likert scale that consists of 26 items. 2x2 Achievement goal Orientations Scale has four subscales as mastery approach, mastery avoidance, performance approach, and performance avoidance. The factor loads of the scale are between .41 and .98, total item correlations of it are between .56 and .73. The internal consistency coefficients are between .92 and .97 for the subscales, and the test-retest coefficients are between .77 and .86.

*Teacher Self-Efficacy Perception Scale*

In order to gather the data on candidate teachers' self-efficacy beliefs, 'Teacher Self-efficacy Scale' was used. It was developed by Tschannen-Moran & Woolfolk Hoy (2001) and adapted to Turkish by Çapa, Çakıroğlu & Sarıkaya (2005), and they also did the validity and reliability studies of the scale, too. The Teacher Self-efficacy Scale is comprised of 24 items of 9 point likert scale, and three subscales. The responses each item range from 1 (insufficient) to 9 (very sufficient). The Cronbach Alpha coefficients of scale were found to be .93, .82, .86, and .84 for the total scale, student engagement subscale, instructional strategies subscale and classroom management subscale, receptively.

***Data analysis***

In the data analysis, the standard deviations and the means of the groups were calculated by keeping the sub problems of the study in mind. After the suitability of the parametric tests was tested, independent sample t-Test and analysis of variance, (one- way ANOVA's with Post Hoc LSD Multiple Comparison Test) were used to determine whether the differences among the means are significant or not. LSD Test was done to find out the sources of the differences. To examine the relationships between the study variables, Pearson Correlations were calculated. Finally, Multiple Regression Analysis was used to explore predictors of participants' achievement goal orientations.

***Procedure***

The research was conducted in the spring term of 2012-2013 academic year. The measures were administered to students during 50-minute class periods on in groups of 30-35. The measures were counterbalanced in administration. Prior to administration of measures, all participants were told about purposes of the study. Candidate teachers voluntarily participated in research.

**Results**

In order to find out whether the candidate teachers' self-efficacy beliefs differ according to their genders or not, t-test was done and the results are given in Table 1.

**Table 1:** The Means and Standard Deviations of Self-Efficacy Subscale and Total Scale Scores in Terms of Gender

| Self Efficacy | Gender | n | $\overline{X}$ | SD | DF | t | p |
|---|---|---|---|---|---|---|---|
| Student engagement | Girls | 292 | 6.90 | 1.04 | 445 | .73 | .46 |
| | Boys | 155 | 6.82 | 1.03 | | | |
| Instructional Strategies | Girls | 292 | 6.95 | 1.07 | 445 | .21 | .83 |
| | Boys | 155 | 6.93 | 1.10 | | | |
| Classroom Management | Girls | 292 | 6.84 | 1.10 | 445 | -1.49 | .14 |
| | Boys | 155 | 7.00 | 1.04 | | | |
| Total | Girls | 292 | 6.90 | 1.01 | 445 | -20 | .83 |
| | Boys | 155 | 6.92 | .98 | | | |

When Table 1 is examined, it is seen that girls' means are higher than the boys' in terms of student engagement and instructional strategies subscales, and boys' means are higher than the girls' in terms of classroom management subscales and the total scale points. As a result of the independent t-Test, it was found out that the candidate teachers' professional self-efficacy beliefs do not differ according to their genders.

T-test was done to find out whether the professional self-efficacy beliefs of the candidate teachers differ according to the grade levels or not, and the results are shown in Table 2.

**Table 2:** The Means and Standard Deviations of Self-Efficacy Subscale and Total Scale Scores in Terms of Grade Level

| Self- Efficacy | Grades | n | $\overline{x}$ | SD | DF | t | p |
|---|---|---|---|---|---|---|---|
| Student engagement | 2 | 195 | 7.05 | .99 | 445 | 3.24 | .00* |
| | 4 | 252 | 6.73 | 1.06 | | | |
| Instructional Strategies | 2 | 195 | 7.06 | 1.06 | 445 | 2.04 | .04* |
| | 4 | 252 | 6.85 | 1.09 | | | |
| Classroom Management | 2 | 195 | 7.05 | 1.04 | 445 | 2.56 | .01* |
| | 4 | 252 | 6.78 | 1.11 | | | |
| Total | 2 | 195 | 7.05 | .93 | 445 | 2.80 | .01* |
| | 4 | 252 | 6.79 | 1.03 | | | |

*$P$<.05

According to Table 2, it is seen that the means of the candidate teachers at the 2nd grade are higher than the ones at the 4th grade in all subscales. As a result of the independent t-Test, it was found out that there is a significant difference in terms of grade levels in all subscales; candidate teachers' professional self-efficacy [$t$(445)=2.80, $p$<.05), student engagement [$t$(445)=3.24, $p$<.05)], instructional strategies [$t$(445)=2.04, $p$<.05)], and classroom management [$t$(445)= 2.56, $p$<.05)].

In order to find out whether the candidate teachers' professional self-efficacy beliefs differ according to their departments or not, variance analysis was done and the results are shown in Table 3. According to Table 3, it is clear that in all subscales and in total, the candidate Turkish and the Social Studies teachers have the highest professional self-efficacy beliefs means. Within the student engagement subscale, the candidate Science teachers; and within the instructional strategies and classroom management subscales, the candidate Class teachers have the lowest means. As a result of the variance analysis, it was found out that the self-efficacy beliefs of instructional strategies [$F_{(4,442)}$=2.87, $p$<.05)] differ according to the departments but not the classroom management and student engagement efficacy perceptions. According to the LSD Test results that was done to find out the source of this difference, within the instructional strategies subscale, there is a significant difference between Turkish Language Education and Primary School Education, it is on behalf of Turkish Language Education and there is also a significant difference between Social Studies Education and Primary School Education, which is on behalf of Social Studies Education.

**Table 3:** The Means and Standard Deviations of Self-Efficacy Subscale and Total Scale Scores in Terms of Department

| | Department | n | $\overline{x}$ | SD | F | P |
|---|---|---|---|---|---|---|
| Student engagement | Turkish | 85 | 7.01 | .96 | 1.12 | .34 |
| | Class | 87 | 6.80 | 1.19 | | |
| | Science | 87 | 6.77 | 1.04 | | |
| | Social Studies | 80 | 7.01 | 1.00 | | |
| | Preschool | 108 | 6.81 | .98 | | |
| Instructional strategies | Turkish | 85 | 7.17 | 1.00 | | |
| | Class | 87 | 6.68 | 1.28 | 2.87 | .02* |
| | Science | 87 | 6.88 | .98 | | |
| | Social Studies | 80 | 7.11 | 1.13 | | |
| | Preschool | 108 | 6.89 | .97 | | |
| | Turkish | 85 | 7.05 | .97 | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Classroom | Class | 87 | 6.73 | 1.25 | 2.38 | .05 |
| Management | Science | 87 | 6.84 | 1.05 | | |
| | Social Studies | 80 | 7.14 | 1.05 | | |
| | Preschool | 108 | 6.77 | 1.08 | | |
| | | | | | | |
| | Turkish | 85 | 7.08 | .88 | | |
| | Class | 87 | 6.74 | 1.18 | 2.24 | .06 |
| Total | Science | 87 | 6.83 | .96 | | |
| | Social Studies | 80 | 7.09 | .98 | | |
| | Preschool | 108 | 6.82 | .92 | | |

*P*<.05

To see whether the candidate teachers' achievement goal orientations differ according to their genders or not, t-test was done and the results are shown in Table 4.

**Table 4:** The Means and Standard Deviations of Goal Orientations Subscale and Total Scale Scores in Terms of Gender

| Goal Orientations | Gender | n | $\overline{x}$ | SD | DF | t | p |
|---|---|---|---|---|---|---|---|
| Mastery Approach | Girls | 292 | 3.94 | .54 | 445 | 2.79 | .00* |
| | Boys | 155 | 3.79 | .56 | | | |
| Mastery Avoidance | Girls | 292 | 3.22 | .74 | 445 | 2.04 | .04* |
| | Boys | 155 | 3.07 | .72 | | | |
| Performance Approach | Girls | 292 | 2.53 | .81 | 445 | -1.18 | .23 |
| | Boys | 155 | 2.62 | .82 | | | |
| Performance Avoidance | Girls | 292 | 2.57 | .81 | 445 | -.77 | .43 |
| | Boys | 155 | 2.63 | .74 | | | |

**P*<.05

When Table 4 is analyzed, it is seen that girls' mastery approach and mastery avoidance orientation means are higher than the boys while in performance approach and performance avoidance orientation, the boys' means are higher than the girls'. As a result of the independent t-test, it was realized that mastery approach [$t$ (445)=2.79, $p$<.05)] and mastery avoidance [$t$(445)=2.04, $p$<.05)] orientations differ according to gender. According to these results, it can be said that girls are more oriented towards mastery approach and mastery avoidance than boys.

An independent samples t-Test was used to determine whether the candidate teachers' achievement goal orientations differ according to the grade level or not, and the results are presented shown in Table 5.

**Table 5:** The Means and Standard Deviations of Goal Orientations Subscale and Total Scale Scores in Terms of Grade Level

| Goal Orientations | Grades | n | $\overline{x}$ | SD | DF | t | p |
|---|---|---|---|---|---|---|---|
| Mastery Approach | 2 | 195 | 3.87 | .55 | 445 | -.76 | .44 |
| | 4 | 252 | 3.91 | .55 | | | |
| Mastery Avoidance | 2 | 195 | 3.18 | .74 | 445 | .12 | .89 |
| | 4 | 252 | 3.17 | .73 | | | |
| Performance Approach | 2 | 195 | 2.61 | .74 | 445 | 1.16 | .24 |
| | 4 | 252 | 2.52 | .87 | | | |
| Performance Avoidance | 2 | 195 | 2.72 | .74 | 445 | 2.02 | .00* |
| | 4 | 252 | 2.50 | .81 | | | |

**P*<.05

It is seen Table 5 presents that the 2nd graders' mastery approach and mastery avoidance orientation means are really close to the 4th graders'. However, in performance approach and performance avoidance orientation, the means of the 2nd graders are higher than the 4th graders. As seen in Table 5, significant grade level differences were found in performance avoidance scores according to grade level [$t$ (445)= 2.02, $p$<.05)], while learning approach, learning avoidance, and performance approach do not. Thus, it can be concluded that the 2nd graders have more performance avoidance orientation than the 4th graders.

In order to investigate department differences in teachers' achievement goal orientations subscales, an analysis of variance (ANOVA) was conducted. Variance analysis was done to find out whether the candidate teachers' achievement goal orientations differ according to their departments or not, and the results are presented in Table 6. Results indicated that the highest means belong to the candidate Social Studies teachers and the lowest means belong to the candidate preschool teachers. Furthermore, in mastery avoidance, the candidate Turkish teachers have the highest means, while the candidate classroom and Social Studies teachers have the lowest means. In performance avoidance and performance approach, candidate class teachers have the highest means, and the candidate Social Studies teachers have the lowest means.

As a result of the variance analysis, it was found out that mastery approach [$F$(4,442) =3.14, $p$<.05)] and mastery avoidance [$F$(4,442) =2.76, $p$<.05) orientations differ according to the departments; however, performance approach and performance avoidance dimensions do not differ. To find out the source of the significant difference, LSD Test was done and it was seen that there is a significant difference in mastery approach among the candidate Social Studies teachers, Class teachers, and Preschool teachers on behalf of the Social Studies, and between the candidate Turkish teachers and Preschool teachers; the difference is on behalf of Turkish. Therefore, it can be said that the candidate Social Studies teachers and Turkish are more mastery approach oriented than the others. In the mastery avoidance subscales, there is a significant difference between the candidate Class teachers of and Science teachers, and between the Social Studies Teachers and Science teachers on behalf of the Science teachers. It can be said that the candidate Science teachers are more oriented to mastery avoidance than the others.

**Table 6:** The Results of the Achievement Goal Orientation Means, Standard Deviations, and Variance Analysis of the Candidate Teachers According to by Their Departments

| Goal Orientations | Department | n | $\overline{x}$ | SD | F | p |
|---|---|---|---|---|---|---|
| | Turkish | 85 | 3.99 | .51 | | |
| | Class | 87 | 3.83 | .61 | | |
| Mastery Approach | Science | 87 | 3.90 | .54 | 3.14 | .01* |
| | Social Studies | 80 | 4.01 | .56 | | |
| | Preschool | 108 | 3.77 | .52 | | |
| | Turkish | 85 | 3.26 | .67 | | |
| | Class | 87 | 3.05 | .75 | | |
| Mastery Avoidance | Science | 87 | 3.35 | .73 | 2.76 | .02* |
| | Social Studies | 80 | 3.05 | .74 | | |
| | Preschool | 108 | 3.15 | .75 | | |
| | Turkish | 85 | 2.51 | .74 | | |
| Performance Approach | Class | 87 | 2.66 | .85 | | |
| | Science | 87 | 2.54 | .79 | .87 | .48 |
| | Social Studies | 80 | 2.45 | .96 | | |
| | Preschool | 108 | 2.61 | .75 | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| Performance Avoidance | Turkish | 85 | 2.63 | .70 | | |
| | Class | 87 | 2.66 | .81 | | |
| | Science | 87 | 2.61 | .83 | 1.18 | .31 |
| | Social Studies | 80 | 2.42 | .76 | | |
| | Preschool | 108 | 2.62 | .81 | | |

*$P$<.05

Pearson Correlation analysis was used to examine the relation between the candidate teachers' achievement goal orientations and self-efficacy beliefs and the results are given in Table 7.

**Table 7:** Pearson Correlations Between Achievement Goal Orientations and Self-Efficacy Beliefs

| | Participation | Strategy | Management | MA | MAV | PA | PAV |
|---|---|---|---|---|---|---|---|
| Student engagement | 1 | | | | | | |
| Instructional Strategies | .81** | 1 | | | | | |
| Classroom Management | .78** | .82** | 1 | | | | |
| Mastery Approach | .38** | .39** | .37** | 1 | | | |
| Mastery Avoidance | .14* | .09 | .12* | .34** | 1 | | |
| Performance Approach | -.03 | -.05 | -.01 | -.04 | .37** | 1 | |
| Performance Avoidance | -.07 | -.16** | -.08 | -.05 | .50** | .67** | 1 |

*MA: Mastery Approach MAV : Mastery Avoidance PA: Performance Approach PAV: Performance avoidance, **p* < 0,01, **p*<.05

According to the results, candidate teachers' mastery approach orientations was found to be significantly and positively correlated with student engagement ($r$=.38), instructional strategies ($r$=.39), classroom management ($r$=.37), and the self-efficacy perceptions. While there is a low level of relation between the candidate teachers' mastery avoidance orientation and student engagement ($r$=.14) and classroom management ($r$=.12) self-efficacy perceptions, there is no significant relation between mastery avoidance orientation and instructional strategies ($r$=.09) self-efficacies. There is no significant relation between performance approach and student engagement ($r$=-.03), instructional strategies ($r$=-.05), and classroom management ($r$=-.01). There is a significant negative relation between performance avoidance and instructional strategies ($r$=-.16) and performance avoidance has no significant relation with student engagement ($r$=-.07) and classroom management ($r$=-.08).

The power of the achievement goal orientations of the candidate teachers on predicting self-efficacy beliefs was also examined; the results of the multiple regression analysis by the subscales are given in Table 8. Table 8 shows that the achievement goal orientations of the candidate teachers can predict student engagement [$F$(4, 442) = 18.93, $p$<.01], instructional strategies [$F$(4, 442) = 23.84, $p$<.01], classroom management [$F$(4, 442) = 19.33, $p$<.01], and general self-efficacy beliefs [$F$(4, 442) =24.13, $p$<.01]. The independent variables accounted for 15% of variance in student engagement self-efficacy beliefs, 18% of the instructional strategies self-efficacy beliefs, 15% of the classroom management self-efficacy beliefs, and 18% of the total self-efficacy beliefs. When the t-Test results on the meaningfulness of regression coefficients are examined, it was found that mastery approach goal orientation was a significant predictor of student engagement [($\beta$=.35, $p$<.01), t(4, 442) = 7.28, p<.01], instructional strategies [($\beta$=.37, $p$<.01), t(4, 442) = 7.77, $p$<.01],, classroom management [($\beta$=.35, p<.01), t(4, 442) = 7.30, $p$<.01],, and total professional self-efficacy beliefs [($\beta$=.38, $p$<.01), t(4, 442) = 8.10, $p$<.01]. Also, performance avoidance goal orientation was found to be a significant predictor of instructional strategies, classroom management, and total professional self-efficacy beliefs. However, it was seen that candidate teachers' performance avoidance goal orientation was significantly and negatively correlated with instructional

strategies [($\beta$=-.21, $p$<.01), t(4, 442) = -3.41, $p$<.01], classroom management [($\beta$=-.15, $p$<.05), t(4, 442) = -2.32, $p$<.05], and total professional self- efficacy perceptions [($\beta$=-.17, $p$<.05), t(4, 442) = -2.62, $p$<.05]. Performance approach and mastery avoidance do not have a significant contribution to the model.

**Table 8** Results of Multiple Regression Analysis Predicting Self- Efficacy Beliefs

| Subscales | Variables | **B** | SD | **β** | *t* | p |
|---|---|---|---|---|---|---|
| | Stable | 4.30 | .37 | | 11.69 | .00** |
| | Mastery Approach | .66 | .09 | .35 | 7.28 | .00** |
| Student | Mastery Avoidance | .07 | .07 | .05 | .90 | .36 |
| engagement | Performance Approach | .03 | .07 | .02 | .47 | .63 |
| | Performance Avoidance | -.13 | .08 | -.09 | -1.48 | .13 |
| R= .38 | **R2** =. 146 | P=.000 | | **p<.001 | | |
| | Stable | 4.40 | .37 | | 11.65 | .00** |
| | Mastery Approach | .73 | .09 | .37 | 7.77 | .00** |
| Instructional | Mastery Avoidance | .05 | .08 | .03 | .62 | .53 |
| Strategies | Performance Approach | .13 | .07 | .09 | 1.65 | .10 |
| | Performance Avoidance | -.29 | .08 | -.21 | -3.41 | .00** |
| R= .42 | **R2** =.177 | P=.000 | | **p<.001 | | |
| Classroom | Stable | 4.22 | .39 | | 10.97 | .00** |
| Management | Mastery Approach | .69 | .09 | .35 | 7.30 | .00** |
| | Mastery Avoidance | .05 | .08 | .03 | .64 | .52 |
| | Performance Approach | .13 | .07 | .10 | 1.69 | .09 |
| | Performance Avoidance | -.21 | .08 | -.15 | -2.32 | .02* |
| R= .39 | **R2** =.149 | P=.000 | | **p<.001 | | |
| Total | Stable | 4.31 | .34 | | 12.43 | .00* |
| | Mastery Approach | .69 | .08 | .38 | 8.10 | .00* |
| | Mastery Avoidance | .05 | .07 | .04 | .78 | .43 |
| | Performance Approach | .09 | .07 | .08 | 1.39 | .16 |
| | Performance Avoidance | -.21 | .08 | -.17 | -2.62 | .00* |
| R= .42 | **R2** =.18 | P=.000 | | **p<.001 | | |

## Discussion and Conclusion

In the study, it was found out that the candidate teachers' self-efficacy beliefs do not significantly differ according to their genders. This result is parallel with the previous studies on the candidate teachers (Akbaş & Çelikkaleli, 2006; Aksu, 2008; Akkuzu & Akçay, 2012; Baykara, 2011; Harurluoğlu & Kaya, 2009; Kahyaoğlu & Yangın, 2007; Kutluca & Ekici, 2010; Yılmaz et al., 2006) and the teachers (Korkut & Babaoğlan, 2012; Yılmaz & Bököoğlu, 2008). However, there are also some studies that show that the self-efficacy beliefs of the candidate teachers differ according to their genders. For instance, Ekici (2006) found out a difference on behalf of the female teachers on the teacher self-efficacy beliefs of the vocational high school teachers and Demirtaş et al. (2011) found out that the candidate teachers' self-efficacy beliefs differ on behalf of the males on classroom management and instructional strategies subscales.

In the study, it was specified that the candidate teachers' professional self-efficacy beliefs significantly differ according to their grade levels and departments. According to their grade levels, the professional self-efficacy beliefs of the 2$^{nd}$ graders are higher than the 4$^{th}$ graders. In his study, Baykara (2011) found out that the self-efficacy beliefs of the candidate teachers differ according to the class levels and that the difference is on behalf of the first graders

when compared with the third graders. It was ascertained that there was not a difference on the self-efficacy beliefs according to the class level by Kahyaoğlu & Yangın (2007) for the candidate primary school teachers, by Akkuzu and Akçay (2012) for the candidate chemistry teachers, and by Yılmaz et al. (2006) for the candidate biology teachers on computers. Although it is expected that the self-efficacy beliefs of the candidate teachers should rise as they have the pedagogical knowledge and teaching profession lessons, it is seen that the second graders have a higher professional self-efficacy beliefs than the fourth graders. It will be useful to have deep interviews on the difference seen at the candidate classroom teachers. Since the data collected in the present study was analyzed during the yearend holiday of the candidate teachers, there was no chance of meeting the candidate teachers and thus, the result could not be interpreted through qualitative data.

It was found out that, according to the departments, the Candidate Turkish and Social Studies teachers' professional self-efficacy beliefs are higher, and the candidate classroom teachers' professional self-efficacy beliefs are lower than the others. In the study, it was found out that the self-efficacy beliefs of the candidate teachers on instructional strategies significantly differ and the source of this difference are the candidate classroom teachers. Different from the others, the candidate class teachers are responsible for all education and teaching of their students. The class teachers have to both teach Math, science, Social Studies and provide the behavioral education. This might have caused the class teachers to feel more responsibility, and thus, more inefficacy. Demirtaş et al. (2011) found out that the candidate Turkish, social, arts, and music teachers perceive themselves more efficient than the candidate preschool, classroom and Math teachers. Kahyaoğlu & Yangın (2007) detected that the candidate Science teachers have a higher level of professional self-efficacy when compared with the candidate teachers of other subjects. Üstün & Tekin (2009) found out that the candidate Social Studies and Turkish teachers have the highest self-efficacy beliefs on "student engagement" and the candidate Math teachers have the lowest. However, it was found out by Yılmaz &Bököoğlu (2008) on primary school teachers, by Kutluca and Ekici (2010) on candidate teachers' perceptions on computer assisted education, and by Aksu (2008) on candidate classroom, Science and preschool teachers that there are no significant differences according to the programs the candidate teachers are enrolled in terms of their self-efficacy beliefs. The differences seen as a result of the studies can be inferred as related to the candidate teachers' faculty, the instructor, and the experiences they had. It is thought that this can be understood more clearly when similar studies are done at different faculties of education in different parts of Turkey.

In the present study, it was found out that the achievement goal orientations have significant differences according to genders and the grade levels. Girls are more oriented on mastery approach and mastery avoidance. When the literature is reviewed, it was found out that girls tend to be more oriented to mastery approach and mastery avoidance (Odacı et al., 2013). Küçükoğlu et al. (2010) found out that there is no significant difference in performance avoidance orientation in terms of gender, but in terms of both learning and performance avoidance orientations, there is a significant difference on behalf of female students. Odacı et al. (2013) found out in a study done with the students of psychological counseling and guidance that female students are more oriented to learning avoidance than the males, however, in mastery approach, performance approach, and performance avoidance, there is no difference according to the gender. According to the grade level, the $2^{nd}$ year students are more performance avoidance oriented than the $4^{th}$ graders. Küçükoğlu et al. (2010) found out that the candidate class teachers have no significant difference in terms of the grade variable on performance avoidance orientation, and in mastery and performance approach, there is a

difference between 1st and the 4th graders on behalf of the first graders. Odacı et al. (2013) found out that the first grade students of psychological counseling and guidance are more oriented on mastery approach than the 2nd, 3rd, and the 4th graders, and the 2nd graders more oriented on mastery avoidance than the 1st, 3rd, and the 4th graders. This result that was gained in the study is surprising when it is thought that the 2nd graders' self- efficacy beliefs are higher than the 4th graders. Although, according to the literature, it is expected that the individuals with more self-efficacy should internalize the mastery approach more, the 2nd graders are more oriented to mastery avoidance. This might have happened because the 2nd graders are afraid of doing mistakes more since they have less experience compared with the 4th graders. However, it will be useful to search the result in detail in following studies.

It was found out in the study that the achievement goal orientations significantly differ according to the departments. However, Arslan (2011) found out that the candidate science, Social Studies and the classroom teachers' achievement goal orientations do not differ according to the departments they attend. The candidate Social Studies and the Turkish teachers are more oriented to mastery approach. In the study, it was found out that the candidate Social and the Turkish teachers have higher professional self-efficacy beliefs. When they are evaluated in this aspect, the findings support each other. Candidate Science teachers were found out to be more oriented to mastery avoidance. This might be because the candidate teachers' thought on science's being Math based and so it will be difficult to teach the subjects and reach the targets, and thus their being afraid of being unsuccessful. Moreover, the student engagement self-efficacy belief of the candidate Science teachers is lower than the other departments and in other subscales; it is lower than the candidate Social Studies and Turkish teachers'.

It was found out that the mastery avoidance oriented candidate teachers have a middle level positive relation with professional self-efficacy beliefs level perceptions. Besides, it was found out that the mastery approach orientation is an important predictor of student engagement, instructional strategies, classroom management, and total professional self-efficacy beliefs. Odacı et al. (2013) found out that the self-efficacy beliefs of the psychological counseling and guidance students and their mastery approach orientations have a positive significant relation. Similarly, Hsieh et al. (2007), Gerhardt & Brown (2006), and Akın (2008b) studied on university students and they found out that there is a positive significant relation between mastery approach orientation and self-efficacy beliefs. Christodoulidis found out that the mastery oriented teachers have higher levels of self-efficacy beliefs and internal motivation (Gorozidis & Papaioannou, 2011). Learners' having high levels of self-efficacy beliefs cause them to internalize the goal orientation faster. That is, when learners are aware of what they can do, this helps them to be more enthusiastic on the mastery goal, to be motivated to reach that goal, to show high performance; and it lowers the possibility of their avoiding the performance they need to reach that goal, ignoring having responsibilities, and showing low levels of performance (performance avoidance orientation) (Hsieh et al., 2008).

Another result of the present study is that, the candidate teachers with the orientation of mastery avoidance have low level relations with the student engagement self-efficacy beliefs, and have no relation with the instructional strategies self-efficacy beliefs. Moreover, performance avoidance goal orientation is an important predictor of instructional strategies, classroom management, and total professional self-efficacy beliefs, while it has a opposite way relation with self-efficacy beliefs, and this is also one of the results of the present study. Odacı et al. (2013) also found out that there is not a significant relation between mastery avoidance orientation and self-efficacy beliefs. Akın (2008b) found a low level negative

relation between mastery avoidance orientation and self-efficacy beliefs. Since the learners with mastery avoidance are perfectionists, they avoid making mistakes. And because of the stress and worry of making mistakes (Elliot & Trash, 2001), their perceptions on their self-efficacy beliefs are low.

It was found out in the present study that the candidate teachers with performance approach do not have a relation in their professional self-efficacy beliefs. While there is no relation in student engagement and classroom management self-efficacy beliefs with the performance avoidance oriented teachers, there is a negative self-efficacy beliefs on instructional strategies. Akın (2008b) found out that there is an opposite way middle level relation between self-efficacy and performance approach, and again an opposite way but low level relation between self-efficacy and performance avoidance. Performance avoidance and performance approach goals are motivated through the fear failure. Since it is connected to a high level of failure fear and a low level of efficacy expectation, performance avoidance goals cause individuals to focus more on the possibility of being unsuccessful (Darnon et al., 2007). The ones with performance approach orientations wish to have the approval of others, and compete with others, not themselves. Their motivation levels fall when they face a difficult or failure. The individuals with performance avoidance orientation tend to give the least possible effort in order to avoid negative evaluations and their belief in their own capabilities is low. Therefore, it was not surprising to find out that the candidate teachers with performance avoidance orientation have a negative way significant relation with the instructional strategies that require effort.

## References


Açıkgöz, K.Ü. (2012). *Effective Learning and teaching*, İstanbul: Biliş Press.

Akay, H. & Boz, N. (2011). Investigation of the relationship between elementary teacher candidates' attitudes towards mathematics, mathematics self-efficacy and teacher self-efficacy beliefs, *Journal of Turkish Educational Sciences*, 9(2), 281-312.

Akbaş, A. & Çelikkaleli, Ö. (2006). The ınvestigation of the preservice elementary teachers' science ınstruction self-efficacy beliefs according to their gender, type of education, and universities, *Mersin University Journal of the Faculty of Education*, 2(1), 98-110.

Akkoyunlu, B., Orhan, F. & Umay, A. (2005) A study on developing teacher self efficacy scale for computer teachers**,** *Hacettepe University the Journal of Education*, 29,1 -8.

Akın, A. (2006). 2X2 Achievement goal orientation scale, *Sakarya University the Journal of Education, 12, 1-13.*

Akın, A. (2008a). Self-compassion and achievement goals: A structural equation modeling approach, *Eurasian Journal of Educational Research*, 31, 1-15.

Akın, A. (2008b). Self efficacy, achievement goals and depression, anxiety and stress: A structural equation modelling, *World Applied Sciences Journal*, 3(5), 725-732.

Aksu, H. (2008). Examining prospective primary school teachers' self-efficacy beliefs toward mathematics teaching, *Abant İzzet Baysal University Journal of the Faculty of Education, 8*(2), 161-170.

Akkuzu, N. & Akçay, A. (2012). Examination of the self-efficacy beliefs of prospective chemistry teachers in terms of different variables, *Educational Sciences: Theory & Practice*, 12(3), 2208-2216.

Ames, C. (1992). Goals, structures and student motivation, *Journal of Educational Psychology*, 84 (3), 261-271.

Arslan, A. (2011). Examining the achievement goal orientations and constructivist approach opinion of pre-service teachers, *Ondokuz Mayıs University Journal of Education, 30(1), 107-122.*

Bandura, A. (1994). Self-efficacy, V. S. Ramachaudran (Eds.). *Encyclopaedia of Human Behaviour*, 4, 71-81. New York: Academic Press.

Bandura, A. (1997). *Self-efficacy the exercise of control.* New York: W. H. Freeman and Company.

Barron, K.E. & Harackiewicz, J. M. (2003). Revisiting the benefits of performance approach goals in the college classroom: Exploring the role of goals in advanced college classroom, *International Journal of Educational Research*, 39, 357-374.

Baykara, K. (2011). A study on "teacher efficacy perceptions" and "meta-cognitive learning strategies" of prospective teachers, *Hacettepe University the Journal of Education*, 40, 80-92.

Chan, K. W., Wong, A. K. Y., & Lo, E. S. C. (2012). Relational analysis of intrinsic motivation, achievement goals, learning strategies and academic achievement for Hong Kong secondary students. *The Asia-Pacific Education Researcher*, 21(2), 230-243.

Çapa, Y., Çakıroğlu, J. & Sarıkaya, H. (2005). The development and validation of a Turkish version of teachers' sense of efficacy scale. *Education and Science*,30(137), 74-81.

Çetin, B. & Akın, A. (2009). An investigation of the relationship between achievement goal orientations and the use of stress coping strategies with canonical correlation. *International Journal of Human Sciences*, 6(1), 242-255.

Darnon, C., Harackiewicz, J. M., Butera, F., Mungy, G. & Qulamzade, G.M.A. (2007). Performance-approach and performance avoidance goals: When uncertainty makes a difference, *Society for Personality and Social Psychology*, 33(6), 813-827.

Demirtaş, H., Cömert, M. & Özer, N. (2011) Pre-service teachers' self-efficacy beliefs and attitudes towards profession, *Education and Science*, 36(159), 96-111.

Dweck, C.S. & Leggett, E.L. (1988). A social-cognitive approach to motivation and personality. *Psychological Review*, 95(2), 256-273.

Ekici, G. (2006). A research on vocational high school teachers' self-efficacy beliefs. Eurasian Journal of Educational Research, 24, 87-96.

Elliot, A. (1999). Approach and avoidance motivation and achievement goals**,** *Educational Psychologist*, 34(3), 169-189.

Elliot. A.J., & Thrash, T.M. (2001) Achievement goals and the hierarchical model of achievement motivation, *Educational Psychology Review*, 13(2), 139-156.

Gerhardt, M. W. & Brown, K. G. (2006). Individual differences in self-efficacy development: The effects of goal orientation and affectivity, *Learning and Individual Differences*, 16, 43-59.

Gorozidis, G. & Papaioannou, A. (2011). Teachers' self efficacy, achievement goals, attitudes and intentions to implement the new Greek physical education curriculum. *European Physical Education Review*, 17, 231-253.

Harurluoğlu, Y. & Kaya, E. (2009). Pre-service biology teachers' self-efficacy beliefs on Biology, *Uludağ University The Journal Of Education*,22(2), 481-496.

Hsieh, P. H., Cho. Y., Liu, M., & Schallert, D. L. (2008). Examining the interplay between middle school students' achievement goals and self-efficacy in a technology-enhanced learning environment. *American Secondary Education Journal*, 36(3), 33-50.

Hsieh, P., Sullivan, J. R. & Guerra, N. S. (2007). A closer look at college students: Self efficacy and goal orientation, *Journal of Advanced Academics*, 18(3), 454-476.

Kahraman, N. (2011). Antecedents and consequences of achievement goals, Unpublished Doctoral Thesis, Ankara: Middle East Technical University.

Kahyaoğlu, M. & Yangın, S. (2007) Views of prospective teachers in elementary school teaching departments about professional self-efficacy, *Kastamonu Education Journal,* 15(1), 73-84.

Kaplan, A., Middleton, M. J., Urdan, T. & Midgley, C. (2002). Achievement goals and goal structures. In C. Midgley (Eds.), *Goals, goal structures, and patterns of adaptive learning* (pp. 21-54). Mahwah, NJ: Lawrence Erlbaum Associates.

Korkut, K. & Babaoğlan, E. (2012). Classroom teachers' self-efficacy beliefs, *International Journal of Management Economics and Business,* 8(16), *269-282.*

Kutluca, T. & Ekici, G. (2010). Examining teacher candidates' attitudes and self-efficacy perceptions towards the computer assisted education, *Hacettepe University Journal of Education,* 38, 177-188.

Küçükoğlu, A. Kaya, H. İ. & Turan, A. (2010) The analysis of the candidate of the primary teacher's perception orientation of success in terms of different variations (Atatürk University and Ondokuz Mayıs University Sample), *Fırat University Journal of Social Science,* 20(2), 121-135.

Midgley,C., Feldlaufer. H. & Eccles, J. S. (1989). Change in teacher efficacy and student self- and task related beliefs in mathematics during the transition to junior high school. *Journal of Educational Psychology,* 81 (2), 247-258.

Tschannen-Moran, M. & Woolfolk Hoy, A. (2001). Teacher efficacy: Capturing an elusive construct. *Teaching and Teacher Education,* 17 (7), 783-805.

Odacı, H., Çelik, Ç. B. & Çıkrıkçı, Ö.(2013). Predicting candidate psychological counsellors' goal orientations as related to several variables, *Turkish Psychological Counselling and Guidance Journal,* 4(39), 95-105.

Özkal, N. (2013). The relationship between achievement goal orientations and self regulated learning strategies of secondary school students in social studies courses, *International Journal of Academic Research,* 5(3), 387-394.

Pintrich, P. R. (1999) The Role of motivation in promoting and sustaining self regulated learning, *International Journal of Educational Research,* 31(6), 459-470.

Schunk, D. H. (1994). Self-regulation of self-efficacy and attributions in academic settings, D. Schunk & B. J. Zimmerman. (Eds.). *Self-Regulation of Learning and Performance,* New Jersey: Lawrence Erlbaum Associates Publishers, pp. 76-99.

Schunk, D. H., & Meece, J. L. (2006). Self-efficacy development in adolescence. In F. Pajares, & T. Urdan (Eds.), Self-efficacy beliefs of adolescents, Greenwich, Connecticut: Information Age Publishing. pp. 71-96.

Sungur, S. & Şenler, B. (2009). An analysis of Turkish high school students' metacognition and motivation. *Educational Research and Evaluation,* 15(1), 45-62.

Üstün, A. & Tekin, S. (2009). Comparison of Amasya Faculty of Education Teacher Candidates' self-efficacy beliefs in terms of different kinds of variables, *Abant İzzet Baysal University Journal of the Faculty of Education,* 9(1), 35-47.

Wolters, C. A., Shirley, L. Y. & Pintrich. P. R.(1996) The relation between goal orientation and students' motivational beliefs and self-regulated learning, *Learning and Individual Differences*; 8(3), 211–238.

Wolters, C.A. (2004). Advancing achievement goal theory: Using goal structures and goal orientations to predict students' motivation, cognition, and achievement. *Journal of Educational Psychology,* 96(2), 236-250.

Yılmaz, K. & Bökeoğlu, Ö. Ç.(2008). Primary school teachers' beliefs of efficacy, *Journal of Faculty of Educational Sciences,* 41(2), 143-167.

Yılmaz, M., Gerçek, C., Köseoglu, P. & Soran, H.(2006). An analysis of the self -efficacy beliefs about computers of the biology student teachers in Hacettepe University. *Hacettepe University Journal of Education***,** 30, 278-287.

Zimmerman, B. J. (2000). Self-Efficacy: An essential motive to learn, *Contemporary Educational Psychology*, 25, 82–91.