

## Gender Differences in Achievement Goals and Their Relations to Self-Reported Persistence/Effort

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### Abstract

*Problem Statement:* The assumption of the achievement goal theory is to develop competence and the notion that students set goals for themselves for participating in physical education classes. These goals can influence their cognition, attitude and behavior. Therefore, the achievement goal theory is a major theoretical framework for research on achievement-related cognitions and behaviors in sport and physical education settings. Achievement goal research in physical education has been conducted primarily in the United States and other Western countries. Research evidence, however, suggests that social, cultural and contextual factors **influence students' achievement**-related cognition, affect and behavior.

*Purpose of Study:* The primary objective of this study was to examine achievement goals and their relationship to student persistence/effort for both male and female students in physical education classes.

*Methods:* Two hundred and twenty-nine 8<sup>th</sup> and 11<sup>th</sup> grade Turkish students (122 boys and 107 girls) completed questionnaires assessing their achievement goals and persistence/effort. Before running Pearson correlation and regression analyses, a one-way MANOVA and follow-up univariate F tests were conducted to determine gender differences.

*Findings and Results:* The results of this study showed that mastery and performance-approach goals demonstrated significant positive predictors of persistence/effort for both gender groups. The results also showed that no differences emerged in the mean scores of achievement goals and persistence/effort between gender groups.

*Conclusions and Recommendations:* **The results of the CFA and Cronbach  $\alpha$**  coefficients support the viability of the trichotomous model as a theoretical perspective in the assessment of student achievement goals in a physical education setting. Results of the study revealed no differences in the mean scores of achievement goals and persistence/effort between boys

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and girls. Mastery goals and performance-approach goals emerged as **significant positive predictors of students' self-reported persistence/effort**, but their predictive power differed by gender. Overall, results of this study provide additional empirical support for the trichotomous achievement goal model in general and to Turkish students specifically in the context of school physical education. More studies are needed in this area in order to appropriately understand the motivational processes across the gender. Such information gained from this line of inquiry would not only help the development of theory but could also lead to a better understanding of gender-appropriate motivational techniques.

*Keywords:* achievement goals, persistence, gender differences, Turkish students

The study of student goal orientation is critical if researchers and teachers expect to understand and enhance student achievement and performance in education settings. Over the past decade, achievement goal theory has been used as a framework for understanding and explaining student motivation, achievement-related cognitions and student behavior in a variety of achievement settings, including classrooms and in physical education (Ağbuga & Xiang, 2008; Ames, 1992; Anderman & Maehr, 1994; Kaplan & Maehr, 1999; Solmon, 1996; Xiang & Lee, 2002). Achievement goals are cognitive representations of the purposes students perceive for engaging in achievement-related behaviors and the meanings they ascribe to those behaviors (Ames, 1992; Dweck, 1986; Maehr, 1984; Nicholls, 1989). Beliefs about the causes of success and failure (Dweck & Leggett, 1988), cognitive and affective responses to success and failure (Ames, 1992; Dweck & Leggett, 1988) and behavioral options based on stable orientation and situational factors (Pintrich, 2000) are some definitions of achievement goal theory. Achievement goals can influence how students approach, experience and perform in achievement settings.

Achievement goal researchers first conceptualized goal orientation as a dichotomy framework: mastery and performance goals (Ames & Archers, 1987, 1988; Ames, 1992; Dweck & Leggett, 1988). These two goals have been alternatively labeled task-involvement goals and ego-involvement goals (e.g., Maehr & Nicholls, 1980; Nicholls, 1989), learning goals and performance goals (e.g., Dweck, 1986; Elliot & Dweck, 1988), and mastery goals and ability goals (e.g., Ames, 1984; Butler, 1992). In this study, mastery goals and performance goals will be used as terminology throughout the article.

Mastery goals focus on learning, improvement and mastering skills, while performance goals focus on social comparisons and demonstration of competence. Research focusing on these two types of goals reveals that they are associated with different motivational patterns. Mastery goals are associated with adaptive motivational patterns, while performance goals are associated with maladaptive motivational patterns (Ames, 1992; Duda, 1992; Duda & Nicholls, 1992; Elliot & Dweck, 1988). Recently, this dichotomous model has been challenged by Elliot and his colleagues (Elliot, 1997; Elliot, 1999; Elliot & Church, 1997; Elliot & Harackiewicz,

1996). They have proposed a trichotomous, approach-avoidance achievement goal framework in which the mastery goals remain the same as that in the dichotomous framework. The performance goals, however, are dissected into approach and avoidance goals. While performance-approach goals focus on the attainment of favorable judgments of competence, performance-avoidance goals focus on avoiding unfavorable judgments of competence (Church, Elliot, & Gable, 2001). Classroom research supports the trichotomous framework and indicates that compared to performance-approach and performance-avoidance goals, mastery goals are more likely to be associated with adaptive motivational outcomes such as working hard for success, showing intrinsic interest in learning, attributing success to effort, using the deep cognitive strategies, self-regulated learning, persisting in the face of difficulty and positive emotions toward the task and school (Kaplan, Gheen, & Midgley, 2002; Shih, 2005). In the physical education domain, few studies applied the trichotomous model to examine student motivation, behavior and achievement (Agbuga & Xiang, 2008; Guan, Xiang, McBride, & Bruene, 2006; Xiang & Lee, 2002). Clearly, research based on a trichotomous model should be extended to the physical education setting.

The assumption of the achievement goal theory is to develop competence and the notion that students set goals for themselves for participating in physical education classes. These goals can influence their cognition, attitude and behavior. Therefore, achievement goal theory became a major theoretical framework for research on achievement-related cognitions and behaviors in sport and physical education settings. Achievement goal research in physical education has been conducted primarily in the United States and other Western countries (Agbuga, 2009; Elliot, 1999; Xiang & Lee, 2002). However, research evidence suggests that social, cultural **and contextual factors influence students' achievement**-related cognition, affect and behavior. Xiang, Lee and Solmon (1997), for example, reported that the American students scored significantly higher on mastery goals than their Chinese counterparts, while there was no significant difference on performance goals between the two cultural groups.

An important issue that has been given little concern in physical education achievement goal research is **whether students' goal orientations change across genders**. Beam, Wiggins and Moode (2000) examined possible gender differences concerning the motivational orientations (task and ego orientations) of middle and high school athletes. They found that girls had a higher level of task orientation than boys. White and Duda (1994) examined the reliability and validity of the Task and Ego Orientation in Sport Questionnaire (TEOSQ). Two hundred and thirty-two male and female youth, high school, intercollegiate and recreational sport participants responded to the TEOSQ. They found that boys were higher in ego orientation than girls. Gill (1986) proposed that boys consistently scored higher on competitiveness and win orientation than girls did. Boys also reported more competitive activities than girls. Kim & Gill (1997), in their study of achievement goals and their correlates among Korean middle school students in physical education, reported that Korean boys scored higher than girls on perceived competence and effort/importance.

Furthermore, researchers in both classroom and physical education (e.g., Dweck, 1986; Elliot, McGregor, & Gable, 1999; Heckhausen, 1991; Xiang & Lee, 2002) consider persistence and effort important indications of student achievement. Persistence is defined as a continued investment in learning when obstacles are encountered, while effort refers to the overall amount of energy or work expended in the process of learning (Zimmerman & Risemberg, 1997). Students who persist and put forth effort are more likely to learn and achieve than students who lack persistence and effort. Because of the significant relationships between persistence/effort and student motivation and achievement, researchers (Dweck, 1986; Elliot & Harackiewicz, 1996; Guan et al., 2006; Xiang & Lee, 2002) in both academic and physical education settings often include it in their studies. Most previous studies have been based on either a dichotomous achievement goal model or traditional classroom settings (Bouffard, Boisvert, Vezeau, & Larouche, 1995; Maclver, Stipek, & Daniels, 1991; Miller, Greene, Montalvo, Ravindran, & Nichols, 1996; Pintrich, Smith, Garcia, & McKeachie, 1993). However, these studies revealed mixed findings regarding performance goals and persistence/effort. By performing a dichotomous achievement goal model, for example, Ames (1992) reported that performance goals were related to maladaptive motivational patterns such as low persistence in the face of difficulty and the use of less effective or superficial learning strategies. However, Harackiewicz, Barron, Carter, Lehto and Elliot (1997) found that performance goals were positively associated with academic performance among college students. The major reason for these mixed findings is that performance goals were not partitioned into approach and avoidance forms of regulation (Elliot et al., 1999). In the trichotomous achievement model, the construct of performance goals is divided into approach and avoidance goals. The approach-avoidance distinction is a critical element to understanding the relationship between achievement goals and related cognitive, affective and behavioral responses. Harackiewicz, Barron, Pintrich, Elliot and Thrash (2002) stated, "At a logical level, this distinction is a key premise of the multiple goal perspective, and accepting this distinction implies the need to revise goal theory to include both types of performance goals" (p. 639). Because of the division of the performance goal construct, the trichotomous model is assumed to clarify the role performance goals play in students' persistence/effort.

To gain a more complete understanding of the roles that social, cultural and contextual factors play in students' achievement goals, there is a need for more studies that focus on students from different social and cultural backgrounds than those from the United States and other Western countries. Therefore, the purpose of this study was to extend previous work on American student achievement goals in physical education to students from Turkey, a country with remarkably different social and cultural values and structures from the United States. Turkey provides a unique opportunity for researchers to understand gender differences in achievement goals and their persistence/effort. Specifically, the following research questions were addressed: (a) How do achievement goals within a trichotomous achievement model and self-reported persistence/effort among students in a physical education setting vary across gender? (b) What are the relationships among achievement goals and self-reported persistence/effort? and c) Do these relationships differ by gender?

## Method

### *The Setting and Participants*

A total of 229 students (122 boys and 107 girls) from two public schools in Turkey served as participants in this study. They were 111 8th graders (57 boys and 54 girls,  $M$  age=14.05,  $SD$ =0.67) and 118 11th graders (65 boys and 53 girls,  $M$  age=17.28,  $SD$ =0.90). All physical education classes were taught by two experienced physical education teachers. Class size ranged from 25 to 40 students. Students had coeducational physical education classes once a week for 90 min. Participation was voluntary and permission was obtained from the institution, parents and children. Teaching and learning activities in physical education curriculum of schools in Turkey is determined by the National Ministry of Education. The traditional physical education curriculum focuses on sports such as track and field, soccer and basketball (Milli Egitim Bakanligi, 1995). The curriculum represents the most important set of guidelines for physical education teachers. Notably, the administrative structure of Turkish education is established by the National Ministry of Education, which forms one of the largest bureaucratic hierarchies in the world. The ministry itself, for example, makes the final decision affecting the administration of all schools and educational activities in Turkey (Karakaya, 2004).

### *Variables and Measures*

The students responded to a two-part questionnaire. The first part consisted of demographic information including age, grade, gender and school. The second part assessed student achievement goals and self-reported persistence/effort in secondary physical education.

*Achievement Goals.* An 18-item questionnaire adapted from Duda and Nicholls (1992), Elliot (1999), and Elliot and Church (1997) measured students' three achievement goals: mastery, performance-approach and performance-avoidance goals. All items were prefaced with the heading "In my physical education class..." Students rated each item on a seven-point scale, ranging from 1 (not at all true for me) to 7 (very true for me). Examples of the six items assessing mastery goals were, "It is important for me to do my very best," "I want to learn as much as possible" and "It is important for me to learn a new skill by trying hard." Examples of the six items assessing performance-approach goals were, "It is important for me to do better than others," "I am striving to demonstrate my ability relative to others," and "My goal is to score the most points/goals/hits/etc." The six items assessing performance-avoidance goals included, "I just want to avoid doing poorly," "I worry about the possibility of getting a bad grad" and "My goal is to avoid doing poorly."

*Self-Reported Persistence/Effort.* Eight items assessed students' self-reported persistence/effort in their physical education classes. This questionnaire was adapted from Fincham, Hokoda and Sanders (1989) and Xiang and Lee (2002). Again, all items were prefaced with the heading "In my physical education class..." Students rated each item on a seven-point scale, ranging from 1 (not at all true for me) to 7 (very true for me). Examples include, "I work hard to do well even if I do not like what we are doing," "When something that I am practicing is difficult, I

spend extra time and effort trying to do it right” and “Regardless whether or not I like the activities, I work my hardest to do them.”

The self-report measures on student achievement goals (mastery, performance-approach, performance-avoidance) and persistence/effort were all modified from previous research. They yielded reliable and valid scores with American students (Duda & Nicholls, 1992; Elliot, 1999; Elliot & Church, 1997, Fincham et al., 1989; Xiang & Lee, 2002). Participants in the present study were Turkish students in secondary physical education. Therefore, several steps were taken to preserve the validity and reliability of these measures.

First, all questionnaire items were translated to Turkish by the author, who was fluent in Turkish and English. To control translation quality, a panel of three other bilingual (Turkish/English) experts in the field of physical education was invited to evaluate item consistency between the English and Turkish versions of the questionnaire. The instrument, with a bilingual format, was mailed to each panel member. The panel members were encouraged to record their comments and suggestions if they believed the translation was inconsistent. They found no inconsistencies.

Second, a pilot study was run with 39 nonparticipating students to assess whether the language in the translated questionnaire was appropriate for Turkish students in secondary physical education. Students raised no questions while completing the questionnaires.

Third, a confirmatory factor analysis (CFA) was conducted on items measuring **students’ achievement goals to test for the three distinct types of achievement goals** (mastery, performance-approach and performance-avoidance) proposed by the trichotomous framework. **Following researchers’ recommendations** (e.g., Hoyle & Panter, 1995; Hu & Bentler, 1999), multiple fit indexes were employed to assess the adequacy of the measurement models. Indices used to determine the goodness-of-fit included: (a) the chi-square to degrees of freedom ratio ( $\chi^2/df$ ), for which values less than 3.0 suggest a good fit (McIver & Carmines, 1981), (b) the comparative fit index (CFI), for which values larger than .90 indicate a good fit, (c) the Bentler-Bonett non-normed fit index (NNFI), for which values larger than .90 indicate a good fit and (d) the root mean square error of approximation (RMSEA), for which .06-.08 is considered an acceptable fit, while .08-.10 is considered a marginal fit (Browne & Gudeck, 1993; Hu & Bentler, 1995). Data were analyzed using AMOS 5.0 (Analysis of Moment Structures) and the models were estimated using the maximum likelihood method. The results indicated three distinct achievement goals in the data set. All indices ( $\chi^2/df=1.87$ , CFI=.90, NNFI=.86, and RMSEA=.062) represent an acceptable fit between the three-factor model and the data. As a result, scales of mastery, performance-approach and performance-avoidance goals were constructed by averaging the items on the scales. **Cronbach’s alphas** for the three scales were .73, .73 and .74, respectively, indicating acceptable internal consistency (Nunnally, 1978).

Finally, an exploratory factor analysis was conducted to examine the factorial validity of self-reported persistence/effort measures. For the self-reported persistence/effort measures, the exploratory factor analysis yielded a single factor

with an eigenvalue greater than 1, accounting for 46.07 percent of the variance (Table 1). All items loaded higher than .40 on the factor. Consequently, an overall score for the self-reported persistence/effort scale was computed by averaging the items on the scale for each participant. The Cronbach's  $\alpha$  was .84.

Table 1

*Factor Analysis of Self-Reported Persistence/Effort*

Self-Reported Persistence/Effort Items	Factor 1
When I have a trouble performing some skills, I go back and practice.	,56
Regardless of whether or not I like the activities, I work my hardest to do them.	,72
When something that I am practicing is difficult, I spend extra time and effort trying to do it right.	,65
I try to learn and to do well, even if the activity is boring.	,76
I put a lot effort into preparing for skill tests.	,65
I work very hard to prepare for our skills tests.	,74
I work hard to do well even if I do not like what we are doing.	,80
I always pay attention to my teacher.	,48
Eigenvalue	3,68
% Variance	46,07

Note. Factor 1=Persistence/effort

*Procedure*

All data were collected during regularly scheduled physical education classes. The questionnaires were administered to intact classes by the author. Students were told that there were no right or wrong answers and that they could skip any questions if they did not feel comfortable answering them. Students were also informed that information in the survey would be kept confidential and their teachers would not have access to their responses. To ensure independence of students' responses, students were asked to spread out so that they could not see one another's responses. Each item was read aloud to the students and they were encouraged to answer as truthfully as they could. Students were encouraged to ask questions if they had difficulty understanding instructions or items in the questionnaire. Students raised no questions while completing the questionnaires, which took approximately 30 minutes to administer.

## Results

*Gender Differences on Mean Scores of Variables*

As indicated in Table 2, the mean scores of the mastery, performance-approach and performance-avoidance goals as well as the self-reported persistence/effort were above the midpoint of the scale (i.e., 4), suggesting that both boys and girls in secondary schools endorsed all three achievement goals and perceived that they put forth effort and persisted in their physical education classes.

Table 2  
*Descriptive Data and Correlations for Achievement Goals and Self-Reported Persistence/Effort*

	<i>M</i>	<i>SD</i>	1	2	3	4
Boys (n = 122)						
1. Mastery goals	6,32	,65	1	,440**	,366**	,440**
2. Performance-approach goals	5,49	1,01		1	,451**	,501**
3. Performance-avoidance goals	4,88	1,10			1	,334**
4. Self-reported persistence/effort	5,13	1,28				1
Girls (n = 107)						
1. Mastery goals	6,12	,93	1	,587**	,551**	,626**
2. Performance-approach goals	5,24	1,32		1	,684**	,688**
3. Performance-avoidance goals	5,14	1,13			1	,498**
4. Self-reported persistence/effort	5,05	1,36				1

\*\* $p < 0.01$  (2-tailed)

To determine gender differences in achievement goals and self-reported persistence/effort, a one-way MANOVA was conducted on mean scores of these variables. Prior to the MANOVA analysis, the assumption of homogeneity of covariance was examined using the box *M* test. The results revealed the assumption was not met (box  $M=25.909$ ,  $F=2.542$ ,  $p=.005$ ). As a result, Pillai's trace was used to evaluate multivariate significance of the main effect and interactions (Olson, 1979; Tabachnic & Fidell, 1996). The MANOVA analysis yielded a significant main effect for gender level, Pillai's trace=.076,  $F(4, 224)=4.61$ ,  $p < .01$ ,  $\eta^2=.076$ . Follow-up univariate *F* tests, however, revealed no significant gender differences on mastery goals,  $F(1, 227)=3.48$ ,  $p=.063$ ,  $\eta^2=.015$ , performance-approach goals,  $F(1, 227)=2.51$ ,  $p=.114$ ,  $\eta^2=.011$ , performance-avoidance goals,  $F(1, 227)=3.13$ ,  $p=.078$ ,  $\eta^2=.014$  and self-reported persistence/effort,  $F(1, 227)=.20$ ,  $p=.654$ ,  $\eta^2=.001$ .

#### *Relationships Among Variables by Gender*

Pearson product-moment correlations were calculated separately for each gender to identify significant relationships among achievement goals and self-reported persistence/effort (see Table 2). A similar pattern of the relationships was observed for boys and girls. Mastery goals, performance-approach goals, performance-avoidance goals and self-reported persistence/effort were all positively related to one another. Also, the three achievement goals were positively related to students' self-reported persistence/effort.



To examine the relative contributions of the three achievement goals to students' self-reported persistence/effort, hierarchical multiple regression analyses were conducted by gender. Considering the previous research findings that mastery goals are more strongly related to persistence/effort than performance-approach and performance-avoidance goals (Cury, Da Fonseca, Rufo, Peres, & Sarrazin, 2003; Elliot, 1999), for both analyses, the mastery goal was entered first, then the performance-approach goal, and last the performance-avoidance goal. As shown in Table 3, mastery goals (boys:  $\beta = .256$ ,  $p < .001$ ; girls:  $\beta = .350$ ,  $p < .001$ ) and performance approach goals (boys:  $\beta = .351$ ,  $p < .001$ ; girls:  $\beta = .514$ ,  $p < .001$ ) emerged as significant positive predictors of persistence/effort for boys and girls. The two goal predictors explained 31 percent of the variance in students' self-reported persistence/effort for boys and 53 percent for girls, respectively. However, the performance-avoidance goals did not make a significant contribution to the prediction model (boys:  $\beta = .082$ ,  $p > .05$ ; girls:  $\beta = -.046$ ,  $p > .05$ ).

Table 3

*Results of Hierarchical Regression on Students' Self-Reported Persistence/Effort*

Variable	Boys			Girls		
	$R^2$	$\Delta R^2$	$\beta$	$R^2$	$\Delta R^2$	$\beta$
				Step 1		
MG	.194	.194**	.440**	.392	.392**	.626**
				Step 2		
MG			.273**			.339**
PAPG	.311	.117**	.380**	.548	.156**	.488**
				Step 3		
MG			.256**			.350**
PAPG			.351**			.514**
PAVG	.316	.005	.082	.549	.001	-.046

Note. MG=mastery goals, PAPG=performance-approach goal, PAVG=performance-avoidance goals;  $R^2$  values are cumulative, with each incremental step adding to the variance explained; \*\*  $p < .001$ .

## Conclusions and Recommendations

This study examined 8<sup>th</sup> and 11<sup>th</sup> grade Turkish male and female students' achievement goals and their relationship to self-reported persistence/effort in physical education classes. Consistent with the findings reported by Elliot (1999) and Elliot and Church (1997) in academic and university settings, the results of the CFA and Cronbach  $\alpha$  coefficients indicated that the scores produced by the trichotomous goal measures were valid and reliable. Scores from the mastery goals, performance-approach and performance-avoidance factors exhibit acceptable psychometric

properties of validity. All fit indexes are in the acceptable range, indicating that the trichotomous achievement goal scale produced valid scores and each of the three achievement goals represents a distinct construct. This finding supports the viability of the trichotomous achievement model as a theoretical perspective in the assessment of student achievement goals and related cognition, affect and behaviors in a Turkish physical education setting.

The results of this study revealed no differences in the mean scores of achievement goals and persistence between boys and girls in secondary physical education. This finding is inconsistent with American studies indicating that boys were more likely than girls to emphasize performance goals, while girls were more likely to score higher on mastery goals than their male counterparts (Beam et al., 2000; Duda, Olson, & Templin, 1991; Middleton & Midgley, 1997). One possible explanation might be that both boys and girls in this study viewed their physical education curriculum to be gender appropriate. According to Turkish National Education Policy, a non-discrimination education is an essential tool for achieving the goals of equality of access to and attainment of educational qualifications (Milli Eğitim Bakanlığı, 1995). Therefore, both boys and girls must perform sport-related skills such as track and field, basketball, volleyball and soccer between their entrance into elementary school and graduation from high school. Another explanation might be that gender differences in achievement goals and persistence do not emerge until students begin to consider future educational and occupational plans. Indeed, in Turkey, 11th grade represents a critical period of schooling in which students have to begin to prepare for the national university entrance examination. This examination requires students to master content knowledge in their classes including science, math, Turkish and social sciences. In addition, university admission is based on a student's secondary school grade point average. These educational obligations may require both boys and girls to master the content in all the subject areas including physical education and at the same time study hard throughout secondary school.

Another purpose of the present study was to examine the relationship between **boys and girls' achievement goals and self-reported persistence/effort**. Simple correlations revealed that for boys and girls, mastery, performance-approach and performance-avoidance goals were positively related to their self-reported persistence/effort in physical education classes. The results of hierarchical multiple regressions further confirmed the pattern of the relationships with one exception. For both genders, performance-avoidance goals were not a significant predictor of their self-reported persistence/effort. This result is not surprising since performance-avoidance goals are negatively related or unrelated to persistence and effort (Elliot et al., 1999). Students who endorse performance-avoidance goals, for example, are likely to see achievement settings as a risk to their perceived ability and therefore may try to avoid exerting effort and persisting in those settings (Elliot & Harackiewicz, 1996).

In conclusion, the present study applied the trichotomous achievement goal model to the examination of achievement goals and their relations to self-reported persistence/effort among Turkish students in physical education at school. The results of the CFA and Cronbach  $\alpha$  coefficients support the viability of the

trichotomous model as a theoretical perspective in the assessment of student achievement goals in a physical education setting. The results of the study revealed no differences in the mean scores of achievement goals and persistence/effort between boys and girls. Mastery goals and performance-approach goals emerged as **significant positive predictors of students' self-reported persistence/effort**, but their predictive power differed by gender. Overall, the results of this study provide additional empirical support for the trichotomous achievement goal model in general and to Turkish students specifically in the context of school physical education. More studies are needed in this area to appropriately understand the motivational processes across genders. Such information would not only help the development of theory but could also lead to a better understanding of gender-appropriate motivational techniques.

#### References

- Agbuga, B. (2009). Reliability and validity of the trichotomous achievement goal model in an elementary school physical education setting. *Egitim Arastirmalari-Eurasian Journal of Educational Research*, 37, 17-31.
- Agbuga, B., & Xiang, P. (2008). Achievement goals and their relations to self-reported persistence/effort in secondary physical education: A trichotomous achievement goal framework. *Journal of Teaching in Physical Education*, 27, 179-191.
- Ames, C. (1984). Competitive, cooperative, and individualistic goal structures: A motivational analysis. In R. Ames & C. Ames (Eds.), *Research on motivation in education* (Vol. 1, pp. 177-207). San Diego, CA: Academic Press.
- Ames, C. (1992). Classrooms: Goals, structures, and student motivation. *Journal of Educational Psychology*, 84, 261-272.
- Ames, C., & Archer, J. (1987). Mother's belief about the role of ability and effort in school learning. *Journal of Educational Psychology*, 79, 409-414.
- Ames, C., & Archer, J. (1988). Achievement goals in the classroom, students' learning strategies and motivation processes. *Journal of Educational Psychology*, 80, 260-267.
- Anderman, E., & Maehr, M. (1994). *Motivation and schooling in the middle grades*. *Review of Educational Research*, 64, 287-310.
- Beam, L., Wiggins, M. S., & Moode, F. M. (2000). Task and ego motivational in middle and high school athletes: A gender by school comparison. *KAHPERD Journal*, 2, 15-17.
- Bouffard, T., Boisvert, J., Vezeau, C., & Larouche, C. (1995). The impact of goal orientation on self-regulation and performance among college students. *British Journal of Educational Psychology*, 65, 317-329.
- Browne, M. W., & Gudeck, R. (1993). Alternative ways of assessing model fit. In K.A.

- Butler, R. (1992). What young people want to know when: Effects of mastery and ability goals on interest in different kinds of social comparisons. *Journal of Personality and Social Psychology*, 62, 934-943.
- Church, M. A., Elliot, A. J., & Gable, A. L. (2001). Perceptions of classroom environment, achievement goals and achievement outcomes. *Journal of Educational Psychology*, 93(1), 43-54.
- Cury, F., Da Fonseca, D., Rufo, M., Peres, C., & Sarrazin, P. (2003). The trichotomous model and investment in learning to prepare for a sport test: A mediational analysis. *British Journal of Educational Psychology*, 73, 529-543.
- Duda, J. L. (1992). Motivation in sport settings: a goal perspective approach. In: Roberts G. (Ed). *Motivation in Sport and Exercise*. Champaign, ILL: Human Kinetics, (pp. 57-92).
- Duda, J. L., & Nicholls, J. (1992). Dimensions of achievement motivation in schoolwork and sport. *Journal of Educational Psychology*, 84, 290-299.
- Duda, J. L., Olson, L. K., & Templin, T. J. (1991). The relationship of task and ego orientation to sportsmanship attitudes and the perceived legitimacy of injurious acts. *Research Quarterly for Exercise and Sport*, 62, 79-87.
- Dweck, C. S. (1986). Motivational processes affecting learning. *American Psychologist*, 41, 1040-1048.
- Dweck, C. S., & Leggett, E. A. (1988). A social-cognitive approach to motivation and personality. *Psychological Review*, 95, 256-273.
- Elliot, A. J. (1997). Integrating the "classic" and "contemporary" approaches to achievement motivation: A hierarchical model of approach and avoidance achievement motivation. In M. L. Maehs & P. R. Pintrich (Eds.), *Advances in motivation and achievement* (Vol. 10, pp. 243-279). Greenwich, CT:JAI Press.
- Elliot, A. J. (1999). Approach and avoidance motivation and achievement goals. *Educational Psychologist*, 34, 169-189.
- Elliot, A. J. & Church, M. A. (1997). A hierarchical model of approach and avoidance achievement motivation. *Journal of Personality and Social Psychology*, 72, 218-232.
- Elliot, A. J., & Harackiewicz, J. M. (1996). Approach and Avoidance Achievement Goals and Intrinsic Motivation: A Mediational Analysis. *Journal of Personality and Social Psychology*, 70, 461-475.
- Elliot, A. J., McGregor, H. A., & Gable, S. (1999). Achievement goals, study strategies, and exam performance: A mediational analysis. *Journal of Educational Psychology*, 76, 628-644.
- Elliot, E. S., & Dweck, C. S. (1988). Goals: An approach to motivation and achievement. *Journal of Personality and Social Psychology*, 54, 5-12.
- Fincham, F. D., Hokoda, A., & Sanders, R., Jr., (1989). Learned helplessness, test anxiety, and academic achievement: A longitudinal analysis. *Child Development*, 60, 138-145.

- Gill, D. L. (1986). Competitiveness among females and males in physical activity classes. *Sex Roles*, 15, 233-247.
- Guan, J. M., Xiang, P., McBride, R. E., & Bruene, A. (2006). Achievement goals, social goals, and students' self-reported persistence and effort in high school physical education. *Journal of Teaching in Physical Education*, 25, 58-74.
- Harackiewicz, J. M., Barron, K. E., Carter, S. M., Lehto, A. T., & Elliot, A. J. (1997). Determinants and consequences of achievement goals in the college classrooms: Maintaining interest and making the grade. *Journal of Personality and Social Psychology*, 73, 1284-1295.
- Harackiewicz, J., Barron, K. E., Pintrich, P. R., Elliot, A. J., & Thrash, T. M. (2002). Revision of achievement goal theory: Necessary and illuminating. *Journal of Educational Psychology*, 94, 638-645.
- Heckhausen, H. (1991). *Motivation and action*. New York: Springer-Verlag.
- Hoyle, R. H., & Panter, A. T. (1995). Writing about structural equation models. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications* (pp. 158-176). London: Sage.
- Hu, L., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural Equation Modeling*, 6, 1-55.
- Kaplan, A., Gheen, M., & Midgley, C. (2002). Classroom goal structure and student disruptive behavior. *British Journal of Educational Psychology*, 72, 191-211.
- Kaplan, A., & Maehr, M. L. (1999). Achievement goals and student well-being. *Contemporary Educational Psychology*, 24, 330-358.
- Karakaya, S. (2004). A comparative study: English and Turkish teachers' conceptions of their Professional responsibility. *Educational Studies*, 30, 195-216.
- Kim, B. J., & Gill, D. L. (1997). A cross-cultural extension of goal perspective theory to Korean youth sport. *Journal of Sport and Exercise Psychology*, 19, 142-155.
- MacIver, D., Stipek, D., & Daniels, D. (1991). Explaining within-semester changes in student effort in junior high school and senior high school courses. *Journal of Educational Psychology*, 83, 201-211.
- Maehr, M. L. (1984). Meaning and motivation: Toward theory of personal investment. In R.E. Ames & C. Ames (Eds.), *Research on motivation in education* (Vol. 1, pp. 115-144). New York: Academic Press.
- Maehr, M. L., & Nicholls, J. G. (1980). Culture and achievement motivation: A second look. In N. Warren (Ed.), *Studies in cross cultural psychology* (pp. 221-267). New York: Academic Press.
- Middleton, M., & Midgley, C. (1997). Avoiding the demonstration of lack of ability: An underexplored aspect of goal theory. *Journal of Educational Psychology*, 89, 710-718.
- Miller, R. B., Greene, B. A., Montalvo, G. P., Ravindran, B., & Nichols, J. D. (1996). Engagement in academic work: The role of learning goals, future

consequences, pleasing others, and perceived ability. *Contemporary Educational Psychology*, 21, 388-422.

Milli Eğitim Bakanlığı. (1995). *İlköğretim okulları, lise ve dengi okullar beden eğitimi dersi öğretim programları* [Physical education curriculums for primary and secondary schools]. Istanbul: Milli Eğitim Basımevi.

Nicholls, J. G. (1989). *The competitive ethos and democratic education*. Cambridge, MA: Harvard University Press.

Nunnally, J. (1978). *Psychometric theory*. New York: McGraw-Hill.

Olson, C.L. (1979). Practical considerations in choosing a MANOVA test statistic: A rejoinder to Stevens. *Psychological Bulletin*, 86, 1350-1352.

Pintrich, P. R. (2000). An achievement goal theory perspective on issues in motivation terminology, theory, and research. *Contemporary Educational Psychology*, 25, 92-104.

Pintrich, P. R., Smith, D., Garcia, T., & McKeachie, W. J. (1993). Reliability and predictive validity of the Motivated Strategies for Learning Questionnaire (MSLQ). *Educational and Psychological Measurement*, 53, 801-813.

Shih, S. (2005). Taiwanese Sixth Graders' Achievement Goals and Their Motivation, Strategy Use, and Grades: An Examination of the Multiple Goal Perspective. *Elementary School Journal*, 106, 39-59.

Solmon, M. A. (1996). **Impact of motivational climate on students' behaviors and perceptions of a physical education setting.** *Journal of Educational Psychology*, 88, 731-738.

White, S. A., & Duda, J. L. (1994). The relationship of gender, level of sport involvement, and participation motivation to task and ego orientation. *International Journal of Sport Psychology*, 25, 4-18.

Xiang, P., & Lee, A. (2002). Achievement goals, perceived motivational climate, and **students' self-reported mastery behaviors.** *Research Quarterly for Exercise and Sport*, 73, 58-65.

Xiang, P., Lee, A., & Solmon, M. A. (1997). Achievement goals and their correlates among American and Chinese students in physical education: A cross-cultural analysis. *Journal of Cross-Cultural Psychology*, 28, 645-660.

Zimmerman, B. J., & Risemberg, R. (1997). Self-regulatory dimensions of academic learning and motivation. In G. Phye (Ed.), *Handbook of academic learning* (pp. 105-125). New York: Academic.

## Öğrencilerin Başarı Yönelimleri ve Devamlılık/Gayretleri Arasındaki Cinsiyet Farklılıkları (Özet)

*Problem Durumu:* Öğrencilerin motivasyonlarının kavranılabilmesi için öğrencilerin başarı yönelimlerinin neler olduğunun iyi bilinmesi gerekir. Başarı yönelimleri teorisi, öğrencilerin başarısını değerlendirmek için temel başarı hedeflerinin belirlenmesinin önemini vurgular. Aynı zamanda bu teori kişilerin neden başarılı olmak istediklerinin sebeplerini arar. Bu yüzden başarı motivasyonu teorisi eğitim araştırmalarında kullanılan en temel teorilerden bir tanesi olmuştur. Bu araştırmaların çoğu öğrencilerin başarı yönelimlerini iki temel hedef üzerinde değerlendirmişlerdir. Bunlarda biri öğrenme, ilerleme ve becerilerde uzmanlaşma üzerine odaklanan görev yönelimli hedefler bir diğeri de daha çok sosyal karşılaştırma ve başkalarına karşı yeterliliğin gösterilmesi üzerinde odaklanan performans yönelimli hedeflerdir. Bu durumdaki teori "ikili başarı yönelim modeli" olarak adlandırılmıştır. Görev yönelimli hedefler, derse olan ilgi, dersi öğrenme, okula karşı olumlu duygular besleme ile ilgiliyken, performans yönelimli hedefler daha çok başarının yeteneğe dayalı olduğu ve az bir çaba ile başarının elde edilebileceği inancı ile ilgilidir. Son zamanlarda birçok araştırmacı, bu ikili başarı yönelim modelinin öğrencilerin başarı ya da başarısızlık nedenlerini açıklamada yetersiz kaldığını öne sürmüşler ve "üçlü başarı yönelim modeli" ortaya atılmıştır. Bu modele göre görev yönelimli hedefler ikili başarı modelinde olan görevi aynen üstlendiği halde performans yönelimli hedefler iki ayrı göreve ayrılmıştır: (a) Performans yaklaşma yönelimi ve (b) performans kaçınma yönelimi. Performans yaklaşma yönelimli öğrenciler diğer öğrencilerden daha başarılı ve üstün olma isteklerini daha az bir gayret ile ve kestirmeden başarmak isterken, performans kaçınma yönelimli öğrenciler ise yetersizlik hissini kapılarak başarısızlık durumundan kaçınmaya odaklanmış ve bu nedenle gereken gayreti göstermemeye odaklanmışlardır. Araştırmacılar, bu yaklaşımlı-kaçıncı ayrım sayesinde öğrencilerin başarı yönelimlerini daha doğru tespit edilebileceğini ve hatta öğrencilerin ortaya koyduğu hedefler ile bilişsel, motivasyonel ve davranışsal durumları arasındaki ilişkilerini daha detaylı ve doğru bir şekilde anlayabileceğini öne sürmüşlerdir. Bu düşüncenin sonucu son zamanlarda üçlü başarı modeli üzerinde birçok araştırma yapılmış ve yapılmaya devam etmektedir. Ancak bu araştırmalar daha çok Amerika ve diğer batı ülkelerinde yapılmıştır. Türkiye'de bu modelin kullanımı ve öğrencilerin bilişsel, motivasyonel ve davranışsal durumları hakkında çok az bilgiye sahibiz. Gerçekte bu doğrultuda yapılacak araştırmalar, Türk öğrencilerinin başarı yönelimlerini ve bu yönelimlerin öğrencilerin bilişsel ve davranışsal yönleri arasındaki ilişkileri en doğru şekilde açığa kavuşturacaktır.

*Araştırmanın Amacı:* Bu araştırmanın amacı 8. ve 11. sınıflar beden eğitimi dersinde kız ve erkek öğrencilerin başarı hedeflerini ve bu hedeflerin öğrencilerin derslerini yapmaktaki ya da sürdürmekteki devamlılıkları ve gayretleri arasındaki ilişkiyi araştırmaktır.

*Araştırmanın Yöntemi:* Araştırmanın örneklemini 229 sekizinci ve on birinci sınıf öğrencileri oluşturmaktadır. 122'si erkek, 109'u kız öğrenciden oluşan örneklemin yaş ortalaması 15.67'dir. Araştırmada ölçme aracı olarak üçlü başarı hedefi ölçeği ve devamlılık/gayret ölçeği kullanılmıştır. Veri analizinde, doğrulayıcı faktör analizi öğrencilerin başarı yönelimlerinin üç farklı başarı yönelimlerini (görev, performans yaklaşma ve performans kaçınma yönelimleri) yansıtmadığını test etmiştir. Öğrencilerin devamlılık/gayret anketinin geçerliliğini tespit etmek için ise açıklayıcı faktör analizi yapıldı. Cinsiyetler arası başarı yönelimleri ve bu yönelimlerin devamlılık/gayret arasındaki ilişkiler tespit etmek için Pearson korelasyonu ve regresyon analizleri yapıldı. Ayrıca, cinsiyetler arasında bu değişkenlerin farklılıkları olup olmadığını anlaşılması için tek-yönlü MANOVA ve tek değişkenli F testleri kullanılmıştır. Elde edilen veriler SPSS 15.0 ve AMOS 5.0 programları kullanılarak analiz edilmiştir.

*Bulgular ve Sonuçlar:* Doğrulayıcı faktör analizi ve Cronbach alfa katsayısı sonuçları üçlü başarı hedef modelinin ikinci kademe beden eğitimi derslerinde Türk öğrencilerin başarı yönelimlerini tespit etmede rahatlıkla kullanılabileceği gerçeğini göstermiştir. Üçlü başarı yönelim modelinden elde edilen uyum indeksleri modelin uyumlu olduğunu göstermektedir ( $\chi^2/df = 1.87$ , CFI = .90, NNFI = .86, and RMSEA = .062). Bununla birlikte Cronbach alfa katsayıları görev, performans yaklaşımlı ve performans kaçınmalı yönelimler için sırasıyla .73, .73 ve .74'dür. Bu değerler ölçeğin oldukça güvenilir olduğunu belirtmektedir. Açıklayıcı faktör analizi öte yandan devamlılık/gayret anketinin faktöryel geçerliliğini tespit etmek için yapıldı. Açıklayıcı faktör analizi sonuçları bize özdeğeri 1'den yüksek olan bir tek faktör olduğunu belirtmekte ve varyansın %46.07'sini açıklamaktadır. Sonuçta, açıklayıcı faktör analizi yaparken devamlılık/gayret anketinin bütün sorularının ortalaması kullanıldı. Cronbach alfa katsayısı .84 olarak çıkmıştır. Tek yönlü MANOVA analizi yapmadan önce değişkenlerin homojen olup olmadığına bakıldı. Box's M tablosundaki  $p$  (Sig.) değeri 0,05'ten küçük olduğu için kovaryans matrislerinin eşit olmadığı sonucuna varıldı (Box's  $M = 25.909$ ,  $F = 2.542$ ,  $p = .005$ ). Bundan dolayı Pillai's trace testi kullanıldı (Olson, 1979; Tabachnic & Fidell, 1996). MANOVA analizi cinsiyetler için önemli bir etki, Pillai's trace = .076,  $F(4, 224) = 4.61$ ,  $p < .01$ ,  $\eta^2 = .076$ . Bunu takiben tek değişkenli F tests, kalbuki, görev yönelimli hedeflerde,  $F(1, 227) = 3.48$ ,  $p = .063$ ,  $\eta^2 = .015$ , performans yaklaşma hedeflerde,  $F(1, 227) = 2.51$ ,  $p = .114$ ,  $\eta^2 = .011$ , performans kaçınmalı hedeflerde,  $F(1, 227) = 3.13$ ,  $p = .078$ ,  $\eta^2 = .014$ , ve devamlılık/gayret değişkenleri için herhangi bir cinsiyet farklılığı bulamadı,  $F(1, 227) = .20$ ,  $p = .654$ ,  $\eta^2 = .001$ . Korelasyon analizi, öte yandan, öğrencilerin görev, performans yaklaşımlı ve performans kaçınmalı yönelimleri ile onların devamlılıkları/gayretleri arasında pozitif ve anlamlı bir ilişki bulunmuştur. Halbuki, hiyerarşik regresyon analizi her iki cinsiyet için sadece görev yönelimli (erkekler:  $\beta = .256$ ,  $p < .001$ ; kızlar:  $\beta = .350$ ,  $p < .001$ ) ve performans yaklaşımlı yönelimlerin (erkekler:  $\beta = .351$ ,  $p < .001$ ; kızlar:  $\beta = .514$ ,  $p < .001$ ) belirleyici olduğunu ve değişkenlerin erkekler için %31, kızlar için %53 olarak açıklamıştır.

*Sonuç ve Öneriler:* Bu çalışmanın bulguları cinsiyetler arasında bir farklılık bulunmadığını tespit etmişse de, genel olarak üçlü başarı yönelimleri modelinin



geçerliliğini kanıtlamakla kalmayıp, özel olarak bu başarı modelinin Türkiye’de beden eğitimi ve spor derslerini kapsayan bir eğitim ortamında kullanılabileceğini göstermiştir. Ancak bu başarı modelinin ve öğrencilerin motivasyonlarını daha doğru anlamada daha çok çalışmaya ihtiyaç vardır. Bu şekilde elde edilecek bilgiler sadece üçlü başarı hedefleri modelini desteklemekle kalmayacak aynı zamanda cinsiyetlere uygun motivasyonel tekniklerini anlamada ışık tutacaktır. Bunun sonucunda gerek beden eğitimi ve spor derslerinde gerekse diğer akademik derslerde öğretmenler erkek ve kız öğrencilerin motivasyonel ihtiyaçlarını daha iyi anlayacak, müfredatlarındaki ve ders işleyişlerindeki gereken düzeltmeleri ve eklemeleri buna göre yapabileceklerdir. Bu çalışmanın istatistik analizinin sonuçları, erkek öğrencilerin daha çok performans yönelimli ve kız öğrencilerin görev yönelimli olduklarını işaret eden Amerikalı bilim adamlarının yaptıkları önceki çalışmaları ile bir paralellik göstermemiştir. Bu farklılık belki de iki ülkenin sahip olduğu kültürel, sosyal ya da içinde bulunan şartlardan kaynaklanabilir. Bu çalışmada yalnızca 8. ve 11. sınıf öğrencileri katılımcı olduğundan buna benzer olarak yapılacak olan çalışmaların ilköğretim öğrencilerinin ve liseli öğrencilerin diğer sınıflarına yaygınlaştırılabilir.

*Anahtar Sözcükler:* Başarı hedefleri, devamlılık, cinsiyet farklılıkları, Türk öğrenciler