

CHILDREN'S ACHIEVEMENT GOALS, ATTITUDES, AND DISRUPTIVE  
BEHAVIORS IN AN AFTER-SCHOOL PHYSICAL ACTIVITY PROGRAM

A Dissertation

by

BULENT AGBUGA

Submitted to the Office of Graduate Studies of  
Texas A&M University  
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

May 2007

Major Subject: Kinesiology

CHILDREN'S ACHIEVEMENT GOALS, ATTITUDES, AND DISRUPTIVE  
BEHAVIORS IN AN AFTER-SCHOOL PHYSICAL ACTIVITY PROGRAM

A Dissertation

by

BULENT AGBUGA

Submitted to the Office of Graduate Studies of  
Texas A&M University  
in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Approved by:

Chair of Committee, Ping Xiang  
Committee Members, Ron E. McBride  
Carl Gabbard  
Robert J. Hall  
Head of Department, Robert Armstrong

May 2007

Major Subject: Kinesiology

## ABSTRACT

Children's Achievement Goals, Attitudes, and Disruptive Behaviors  
in an After-School Physical Activity Program. (May 2007)

Bulent Agbuga, B.S., Middle East Technical University;

M.S., Texas A&M University-Commerce

Chair of Advisory Committee: Dr. Ping Xiang

To promote active and healthy lifestyles in school-age children, many after-school physical activity programs offer students opportunities to participate in a variety of physical activities. The effects of such programs on students' levels of physical activity, however, depend largely on whether the students are motivated to participate and to demonstrate high levels of engagement behaviors in the programs. Therefore, it is critical for researchers and teachers to gain an understanding in this area. This study utilized a trichotomous achievement goal model to explore and describe what actually happened in terms of students' achievement goals, attitudes, and disruptive behaviors in an after-school physical activity program. More specifically, the purposes of the study were fivefold: (1) to examine the reliability and validity of the scores generated by the trichotomous model, (2) to identify achievement goals endorsed by students, (3) to determine students' attitudes toward the program, (4) to identify students' disruptive behaviors, and (5) to investigate the relationships among students' achievement goals, attitudes, attendance, and disruptive behaviors.

Results of this study indicate the trichotomous model observed in academic settings also existed among at-risk elementary school students in an after-school physical activity program and the scores generated by this model were valid and reliable. Furthermore, students were found to score significantly higher on the mastery goal than they did on the performance-approach and performance-avoidance goals, demonstrate positive attitudes, and display disruptive behaviors identified with the literature. Finally, the mastery goal was found to be positively related to students' positive attitudes and negatively related to students' self-reported low engagement, whereas the performance-approach and performance-avoidance goals were found to be positively related to students' self-reported disruptive behaviors.

Overall, the findings of the present study provide empirical support for the utilization of the trichotomous model in the context of after-school physical activity programs. They also suggest the positive motivational effects of mastery goals observed in the classroom and physical education can be translated in the context of an after-school physical activity program with at-risk elementary school students. Therefore, promoting mastery goals among students should become a high priority in after-school physical activity programs.

## DEDICATION

This educational endeavor is dedicated to the fondest memory of Veli Agbuga,  
my blessed father (February 1942 to May 2006).

## ACKNOWLEDGEMENTS

First, I would like to express my appreciation to the members of my committee, Dr. Ping Xiang, Dr. Ron E. McBride, Dr. Carl Gabbard, and Dr. Robert J. Hall.

I would like to express my deepest gratitude to my advisor, Dr. Ping Xiang, for her excellent guidance, caring, patience, and helpfulness. Dr. Ping was always there, not only to give advice for my graduate studies but also to listen and to help me when I was struggling to finish my degree. I consider myself extremely lucky to have had the opportunity to work with such a brilliant teacher and scholar. I would never have been able to finish my dissertation without her guidance.

Appreciation is also extended to my committee members Dr. Ron E. McBride, Dr. Carl Gabbard, and Dr. Robert J. Hall. Their thoughtful comments and suggestions elevated the quality of this endeavor.

I would like to thank Dr. Ranjita Misra, Mary Beth Isenhardt, and all other faculty and staff in the Department of Health and Kinesiology for their assistance, friendship, and support. I would also like to thank Dr. Ferman Konukman, who, as a good friend, was always willing to help and give his best suggestions.

Lastly, I want to say thank to my family. My wife, Fatma, my children, Beste, Ipek, and Zeynep, and my parents, Veli and Yeter, have been there for me when I was struggling to finish and encouraged me to persevere when I was tempted to quit. Without their love, support, and assistance, I could not have completed my graduate studies. I love you all!

## TABLE OF CONTENTS

	Page
ABSTRACT.....	iii
DEDICATION.....	v
ACKNOWLEDGEMENTS.....	vi
TABLE OF CONTENTS.....	vii
LIST OF FIGURES.....	ix
LIST OF TABLES.....	x
CHAPTER	
I INTRODUCTION.....	1
After-School Programs and After-School Physical Activity Programs.....	3
Students' Achievement Goals.....	6
Trichotomous Achievement Goal Model.....	8
Measures of Achievement Goals.....	11
Students' Attitudes.....	14
Students' Disruptive Behaviors.....	18
Limitations.....	24
Delimitations.....	25
II THE STUDY.....	26
Introduction.....	26
Achievement Goal Theory.....	29
Students' Attitudes Toward After-School Physical Activity Programs.....	32
Students' Disruptive Behaviors.....	33
Purposes.....	35
Research Questions.....	35
Predictions.....	36
Methods.....	36
The Setting and Participants.....	36
Instrumentation.....	38

## TABLE OF CONTENTS (continued)

CHAPTER	Page
Procedures.....	42
Data Analysis.....	43
Results.....	49
Section I: Quantitative Analyses.....	49
Section II: Qualitative Analysis.....	75
Discussion.....	84
Reliability and Validity of the Trichotomous Achievement Goal Model.....	84
Achievement Goals Endorsed by the Students.....	85
Students' Attitudes .....	88
Disruptive Behaviors .....	89
Relationships Among Achievement Goals, Attitudes, and Disruptive Behaviors.....	91
Implications for Future Research and Practice.....	95
III CONCLUSIONS.....	98
REFERENCES.....	101
APPENDIX A – CHILDREN’S ACHIEVEMENT GOALS AND RELATED ATTITUDINAL AND BEHAVIORAL RESPONSES IN AFTER-SCHOOL PHYSICAL ACTIVITY PROGRAM.....	126
APPENDIX B - DISRUPTIVE BEHAVIOR OBSERVATION FORM.....	129
APPENDIX C - STUDENT ASSENT FORM.....	131
APPENDIX D - INFORMED CONSENT FORM (PARENT/GUARDIAN)...	133
VITA.....	135



## LIST OF FIGURES

FIGURE	Page
1. Final Confirmatory Factor Analysis (CFA) Model of the Trichotomous Achievement Goal Model.....	54
2. Final Confirmatory Factor Analysis (CFA) Model of Students' Self-Reported Disruptive Behaviors.....	55
3. The Eigenvalues of Students' Positive Attitudes.....	57
4. Frequency of Observed Disruptive Behaviors for All Nine Students.....	69
5. Trends of Observed Disruptive Behaviors by Achievement Goals.....	73
6. Trends of Self-Reported Disruptive Behaviors by Achievement Goals....	74

## LIST OF TABLES

TABLE	Page
1. Fit Indices of the Trichotomous Achievement Goal Model and Disruptive Behaviors.....	53
2. Exploratory Factor Analysis on Students' Positive Attitudes.....	56
3. Descriptive Data for Achievement Goals, Positive Attitudes, Attendance, and Disruptive Behaviors.....	59
4. Intercorrelations Among Variables.....	60
5. Results of Hierarchical Multiple Regression on Students' Positive Attitudes.....	62
6. Results of Hierarchical Multiple Regression on Students' Attendance.....	63
7. Results of Hierarchical Multiple Regressions on Students' Self-Reported Disruptive Behaviors .....	64
8. Frequencies and Percentages of Observed Disruptive Behaviors by Achievement Goals.....	70
9. Similarities and Differences Between the Observed and Self-Reported Data of Disruptive Behaviors for All Nine Students.....	72

## CHAPTER I

### INTRODUCTION

It is well documented that childhood obesity has become an epidemic in the United States (U. S. Department of Health and Human Services [USDHHS], 1996; Veugelers & Fitzgerald, 2005). For example, the number of children and teens who are overweight and obese has more than tripled since 1980. Among children and teens aged 6–19 years, 16% (over 9 million young people) are considered overweight or obese. This consequently leads to an increase in coronary heart disease, certain cancers, Type II diabetes, high blood pressure, social, and emotional depressions (USDHHS, 1996). Statistics show that physical inactivity itself has contributed to a 100% increase in the prevalence of childhood obesity in the U.S. since 1980 (Centers for Disease Control and Prevention [CDC], 2001). Inactivity rates are especially higher among at-risk children, persons of low socioeconomic levels, and persons with less education (Crespo, Smit, Andersen, Carter-Pokras, & Ainsworth, 2000; King et al., 2000).

With physical inactivity linked to the problem of overweight and obesity, researchers and educators have targeted school physical education as a means of promoting healthy and active lifestyles (Sallis et al., 1992). Morgan, Pangrazi, and Beighle (2003), for example, suggest that physical education classes are the most reasonable and practical environments to promote physical activity among youngsters in this country. Xiang, McBride, and Solmon (2003) also emphasized the importance of

---

This dissertation follows the style of *Research Quarterly for Exercise and Sport*.

physical education classes on health related issues by stating that school physical education programs could be used as the primary vehicle to address the national overweight and obesity concern. Unfortunately, children's motivation to participate in physical education classes has declined over the last several years (Van Wersch, Trew, & Turner, 1992). The report of the national Youth Risk Behavior Survey in 2003, for example, indicated that enrollment in daily physical education classes dropped from 42% in 1991 to 25% in 1995 and did not change during 1995-2003 (CDC, 2004). Time allocated for physical education at schools also fails to meet the recommendation that children and adolescents participate in at least 60 minutes of moderately intense physical activity daily (CDC, 2006). It is also reported that 24.7% of students who participated in physical activities took part in activities that did not make them sweat or breathe hard for at least 30 minutes on five or more of the past seven days in 2003 (CDC, 2004).

To address this deficiency, many after-school programs have implemented physical activity programs providing students with opportunities to participate in a variety of physical activities. The effects of such programs on students' physical activity levels, however, depend largely on whether students are motivated to participate and to demonstrate high levels of engagement behaviors in the programs. This is because children's motivation plays critical roles in their achievement-related cognition and behavior (Chen, 2001; Wigfield & Eccles, 2000; Xiang, McBride, & Bruene, 2003). Therefore, this study utilized a trichotomous achievement goal model to examine children's motivation and related attitudinal and behavior responses in an after-school physical activity program. This setting was chosen because little information is available

concerning children's motivation and attitudes toward after-school physical activity programs. The purposes of the study were fivefold: (1) to examine the reliability and validity of the scores generated by the trichotomous model, (2) to identify achievement goals endorsed by students, (3) to determine students' attitudes toward the program, (4) to identify students' disruptive behaviors, and (5) to investigate the relationships among students' achievement goals, attitudes, attendance, and disruptive behaviors. Inquiry in these areas could provide after-school physical activity programs personnel knowledge about the nature of children's motivation and attitudes in those programs. With such knowledge, they may be able to develop strategies to maintain and enhance children's positive motivation and attitudes to participate and engage in physical activities provided in these programs. This chapter reviews the literature on (a) after-school programs and after-school physical activity programs, (b) students' achievement goals, (c) their attitudes, and (d) their disruptive behaviors.

#### After-School Programs and After-School Physical Activity Programs

In the last decade, politicians, policy makers, educators, parents, and even the media have focused on after-school hours, coming to view this daily time period as one of unusual "risk and opportunity" (Hofferth, 1995, p.123). The risks range from boredom to self- and socially destructive behaviors while the opportunities range from caring relationships with adults and self-improvement to extra academic learning time (Halpern, 2002; Posner & Vandell, 1994). Because of these risks and opportunities, attention paid to the hours after regular school hours has led to the creation of new after-school programs, particularly those serving low-and moderate-income children.

However, until the mid-1990s, the federal government had little formal involvement in after-school programs (Halpern, 2002) because people thought responsibility for after-school programs should be left to community organizations, such as the Young Men's Christian Association (YMCA) and Boy/Girl Scouts of America. This way of thinking began to change in the mid-nineties because of more incidents of both parents working and a growing field of research on the benefits of after-school programs (Gayl, 2004).

In recent years, substantive federal support has been given for the 21st Century Community Learning Centers' (21st CCLC) after-school programs. According to Chung, Kanter, and Stonehill (2002):

These programs were designed to capture an underused portion of the day to provide additional academic and learning opportunities that complement the school day in addition to mentoring for young people by caring adults, lifelong learning opportunities for community members, and a safe place to support these activities during the before-school, after-school, evening, weekend, holiday, and vacation hours. (p.133)

The 21st CCLC began in 1994 with an appropriation of \$750,000 (Gayl, 2004). Increased attention to after-school programs has helped to generate greater support and the appropriation has increased sharply from year to year. The No Child Left Behind (NCLB) Act continued the momentum to increase the federal investment in after-school programs by authorizing an additional \$250 million each year for the 21st CCLC program until it reaches \$2.5 billion in 2007 (Gayl, 2004). The first statewide 21st CCLC after-school program was established in California in 1998, followed by

programs in Georgia, Delaware, and Texas.

As mentioned earlier, many after-school programs include physical activity as an essential component. Referred to as an after-school physical activity program, the program is designed to provide other opportunities for children to get physically active and gain an understanding of a healthy, physical active lifestyle in addition to their physical education time in school. After-school physical activity programs seem to be particularly valuable for low socio-economic and minority students. This is because sedentary behavior and obesity are often associated with ethnicity, religion, region, and sexual orientation (CDC, 2004; McMurray et al., 2000; Pate, Heath, Dowda, & Trost, 1996). African-American children, for example, participate in regular vigorous physical activity from 8% (boys) to 16% (girls) less than their Caucasian counterparts do (USDHHS, 1996). Therefore, low socio-economic and minority students should become a focus of research on after-school physical activity programs.

After-school physical activity programs could become valuable in the battle against childhood obesity in the United States if students can be motivated to participate and to demonstrate high levels of engagement behaviors in these programs. This is because motivation is a driving force that “gets us going, keeps us moving, and helps get job done” (Pintrich & Schunk, 1996, p. 4). Goals, expectations, attributions, values, and emotions represent the crucial aspects of motivation (Schunk & Miller, 2002). Chen (2001) also emphasizes that motivation is essential to the promotion of physical activity among children and calls for continued research in this area of inquiry. However, few studies have been conducted examining students’ motivation and related cognitive,

affective, and behavioral responses (i.e., motivational patterns) in the context of after-school physical activity programs. Among a variety of motivation theories, achievement goal theory has proven fruitful in understanding and explaining children's motivation and behaviors in classroom, youth sports, and physical education (Ames, 1992; Anderman & Maehr, 1994; Solmon, 1996; Walling & Duda, 1995; Xiang & Lee, 2002). Therefore, achievement goal theory is selected as the primary theoretical model to guide the present study.

### Students' Achievement Goals

The concept of achievement motivation has been discussed by researchers for decades. Throughout the years, numerous theories of achievement motivation have been offered, but the most well known theories are the achievement motive approach (Atkinson, 1957), the attributional approach (Weiner & Kukla, 1970), the self-worth approach (Covington & Beery, 1976), the achievement goal theory (Dweck, 1986; Nicholls, 1984), and expectancy-value theory (Eccles et al., 1983).

For example, Atkinson (1957, 1964) and McClelland (1961) developed the most sophisticated view of achievement motivation in the 1950s and early 1960s. Their theory held that achievement is the result of an emotional conflict between striving for success and avoiding failure. The direction, intensity, and quality of achievement behaviors were determined by these two factors (Covington, 2000). Covington (2000) explained:

In effect, it was this difference in emotional reactions (pride vs. shame) that was thought to answer the question of why some individuals approach learning with enthusiasm and others only with reluctance, and why some choose easy tasks for



which success is assured and others tackle problems for which the likelihood of success is exquisitely balanced against the chances of failure. (p.173)

Over the years, this approach/avoidance characteristic has undergone significant adjustments, particularly with the rise of the alternative view of motives-as-goals that attract individuals to action (Elliott & Dweck, 1988). According to Covington (2000), the latest embodiment of the motives-as-goals tradition is achievement goal theory.

Achievement goals are defined as the purposes students perceive for engaging in achievement-related behaviors and the meanings they ascribe to those behaviors (Ames, 1992; Dweck, 1986; Maehr, 1983; Nicholls, 1989). They are also defined as a cognitive-dynamic focus of competence-relevant behavior (Elliot, 1997). Elliot and McGregor (2001) claim that competence may be defined according to whether one has acquired understanding or mastered a task (an absolute standard), improved one's performance or fully developed one's knowledge or skills (an intrapersonal standard), and performed better than others (a normative standard). In other words, achievement goals concern how individuals approach, experience, and perform in achievement settings as well as the reasons why people want to achieve what they achieve.

Over the past two decades, achievement goals and their cognitive, affective, motivational, and behavioral correlates among students have been examined extensively in a variety of achievement settings, including classrooms and physical education classes (Ames, 1992; Anderman & Maehr, 1994; Kaplan & Maehr, 1999; Solmon, 1996; Xiang & Lee, 2002). Achievement goal research in the domain of sports and physical education primarily focused on two major goals (i.e., the dichotomous model): mastery goals and

performance goals (Ames 1992; Ames & Archers, 1987, 1988). These two goals have been alternatively labeled task orientation and ego orientation (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, the terms mastery goals and performance goals will be used throughout the paper.

Mastery goals focus on learning, improving, and mastering skills, whereas performance goals concentrate on social comparison and demonstration of competence relative to others. In performance goals, ability is judged by doing better than others do, or achieving success with little effort because success is based on social comparison. Research focusing on these two types of goals reveals two things. Mastery goals are associated with adaptive motivational patterns such as showing intrinsic interest in learning, displaying positive attitudes toward school, and believing that success is caused by effort. Performance goals are associated with less adaptive motivational patterns such as avoidance of challenging tasks and attributing success to ability. For a more in-depth review, see Chen (2001).

#### *Trichotomous Achievement Goal Model*

Recently, Elliot and his colleagues (Elliot, 1997; Elliot, 1999; Elliot & Church, 1997; Elliot & Harackiewicz, 1996) have proposed a trichotomous, approach-avoidance achievement goal model. This is because a number of studies employing the dichotomous model revealed some mixed findings regarding performance goals and student motivational responses. 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. In physical education, Xiang and Lee (2002) also observed that performance goals were positively related to self-reported mastery behaviors for fourth and eleventh grade students.

In the trichotomous model, the construct of mastery goals remained the same as that in the dichotomous model. The construct of performance goals, however, is divided into approach and avoidance goals. Performance-approach goals are defined as focusing on the attainment of favorable judgments of competence, while performance-avoidance goals focus on avoiding unfavorable judgment of competence (Church, Elliot, & Gable, 2001). 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 student motivational patterns.

Research conducted in classrooms generally supports the trichotomous model (Elliot & Church, 1997; Pintrich, 2000; Ryan & Pintrich, 1997; Skaalvik, 1997;

Vandewalle, 1997). This work also has established links between performance-approach goals and adaptive motivational patterns such as task engagement and high performance on tests (Elliot & Church, 1997; Elliot & McGregor, 1999; Elliot, McGregor, & Gable, 1999; Harackiewicz, Barron, & Elliot, 1998; Harackiewicz et al., 2002), and between performance-avoidance goals and maladaptive motivational patterns such as avoidance of help seeking and low achievement (Elliot & Church, 1997; Elliot & Harackiewicz, 1996; Elliot et al., 1999). In the domain of sport, physical education, and physical activity, however, only a few studies with French students applied the trichotomous model and reported similar findings. Performance-approach goals were found to be linked to positive motivational responses such as incremental beliefs about sports ability and low state anxiety, whereas performance-avoidance goals were found to be linked to negative motivational responses such as high state anxiety and low intrinsic motivation (Cury, 2000; Cury, Da Fonseca, Rufo, Peres, & Sarrazin, 2003; Cury, Elliot, Sarrazin, Da Fonseca, & Rufo, 2002). For example, Cury et al. (2002) examined the relationship between the trichotomous model and intrinsic motivation with French physical education students aged 13 to 15 in an experimental study. Students were randomly assigned to mastery, performance-approach, and performance-avoidance goal conditions manipulated by the researchers. They reported that compared to performance-avoidance goal students, mastery and performance-approach goal students demonstrated high levels of intrinsic motivation, which was measured by the amount of time they spent dribbling the basketball on the course during the two free-choice periods. Midgley, Kaplan, and Middleton (2001) pointed out that the motivation function of the performance approach-

avoidance goals should be studied further in relation to student characteristics (e.g., gender, race, and age), the learning context, and particular motivational responses. More research should be conducted to explore the utility and the meaningfulness of the trichotomous model in understanding student achievement goals and related motivational responses in physical education and physical activity settings.

#### *Measures of Achievement Goals*

Within the dichotomous model, individual differences in mastery and performance goals in sports and physical education settings are primarily assessed by the Task and Ego Orientation in Sport Questionnaire (TEOSQ; Duda, 1989; 1992; Duda & Nicholls, 1992). The TEOSQ consists of 13 items assessing the mastery and performance goals on a 5-point Likert scale with 1 = strongly disagree and 5 = strongly agree. The items are prefaced with the headings “I feel most successful in sports (or physical education) when...” Exemplary items of the mastery goal are “I work really hard” or “I learn a new skill by trying hard.” Exemplary items of the performance goal are “the others can’t do as well as me” or “I score the most points.”

The TEOSQ has demonstrated acceptable validity and reliability and has been successfully adopted in physical education with children in the second grade and higher (Xiang & Lee, 1998; Xiang, Lee, & Solmon, 1997; Xiang, McBride, & Guan, 2004). Research studies with Greek (e.g., Papaioannou, 1990), British (e.g., Goudas, Biddle, & Fox, 1994; Hall & Earles, 1995), and Chinese students (e.g., Xiang, Lee, & Shen, 2001) have supported the validity and reliability of the TEOSQ in the domain of physical education.

The Perception of Success Questionnaire (POSQ; Treasure & Roberts, 1994; Roberts, Treasure, & Balague, 1998), which was originally adapted from Nicholls (1989) study, is another dichotomous achievement goal questionnaire used to measure task (mastery) and ego (performance) goal orientations in sports and physical education. In POSQ, a task orientation is related to adaptive responses, for example the belief that effort is a cause of success, enjoyment, and sports satisfaction, whereas an ego orientation is associated with maladaptive responses, for example boredom, and the belief that deception is a cause of success in sport.

The POSQ consists of 12 items, six that measure task orientation, and six that measure ego orientation. Items of the POSQ are rated on a 5-point Likert scale (1 = strongly agree, 5 = strongly disagree) and used the stem of “I feel successful in sports when...” For example, “I feel successful in sports when I perform to the best of my ability” is an example of task orientation and “I feel successful in sports when I outperform my opponents” is an example of ego orientation items.

The POSQ has been used in the sports and physical education domain (e.g., Duda & Whitehead, 1998; Ommundsen, 2001; Standage & Treasure, 2002; Wang, Chatzisarantis, Spray, & Biddle, 2002). For example, Standage and Treasure (2002) examined the relationship between achievement goal orientations and multidimensional situational motivation in middle school physical education. They observed that task orientation was positively related and ego orientation was negatively related to self-determined motivation. Validity and reliability analysis from these studies supported the two constructs of the POSQ.

Within the trichotomous model, Elliot and Church (1997) developed an 18-item questionnaire to assess the mastery goals (e.g., “I want to learn as much as possible from my university classes”), performance-approach goals (e.g., “it is important for me to do better than other students in my university classes”), and performance-avoidance goals (e.g., “I wish my university classes were not graded”) on a 7-point Likert scale ranging from 1 (not at all true of me) to 7 (very true of me). The results from a principle components factor analysis indicated that three separate goal orientations were distinguishable in an academic setting. Elliot and Church (1997) also reported that reliability coefficients (Cronbach’s alphas) for the mastery, performance-approach, and performance-avoidance subscales were .89, .91, and .77, respectively. Later, Elliot (1999) revised the 18-item questionnaire by replacing a performance-avoidance goal item “I wish my university classes were not graded” with a new item, “My goal for this class is to avoid performing poorly.” Consequently, compared to the initial questionnaire, this revised questionnaire demonstrated greater face value and more satisfactory psychometrics of the measures. Analysis of test validity and internal consistency provides strong support for this modified trichotomous model.

In the domain of sports and physical education, Cury (1999) developed the approach and avoidance achievement goal instrument, which was adapted from Elliot (1997) and Elliot and Church (1997). The instrument consists of 15 questionnaire items and has been reported as valid and reliable in sports and physical education settings (Cury, 2000; Cury et al., 2003; Cury et al., 2002). Recently, Guan (2004) and his associates also adapted Elliot (1997), Elliot and Church (1997), and Elliot and McGregor

(2001) achievement goal instruments to examine whether the trichotomous and 2\*2 achievement goal models were appropriate in high school physical education settings. Their result showed that the trichotomous achievement goal model provided a poor fit to the data (CFI = .84, GFI = .82, NNFI = .81, and RMSEA = .09), although Cronbach's alpha coefficients indicated acceptable reliability.

### Students' Attitudes

The study of attitudes began in social psychology during the early part of the twentieth century. Thurstone (1928) provided one of the earliest definition of attitudes by defining it as the “sum total of a man’s inclinations and feelings, prejudice or bias, preconceived notions, ideas, fears, threats, and convictions about any specific topic” (p. 531). In 1931, he redefined this definition by stating, “attitude is the affect for or against a psychological object” (p. 261). More recently, attitudes have been defined as an individual’s evaluation of beliefs and feelings (positive or negative) about the attribute objects (Eagly & Chaiken, 1993; Gonzales, 1992). In physical education settings, Anshel et al. (1991) defined student attitudes as the perceptions of students concerning teachers and physical activity that affects the process of learning and motivation. In addition, Safrit and Wood (1995) stated, “an attitude is a feeling one has about a specific attitude object, such as a situation, a person, or an activity” (p. 23). Notably, Campbell (1968) explained the importance of attitudes as “attitudes play an important role because the attitude determines an individual’s willingness to learn” (p. 456).

Attitudes are formed through beliefs. Beliefs about an object, a person, or an activity determine the formation of attitudes toward them (Eagly & Chaiken, 1993;



Gonzales, 1992; Mohsin, 1990). Triandis (1971) suggests that attitudes consist of three components: (1) a cognitive component, which is a way for humans to categorize ideas, (2) an affective component, which is the emotion that charges the ideas, and (3) a behavioral component, which guides behavior. In explaining the relationship between attitudes, intentions, and future behavior, Ajzen and Fishbein (1980) developed the theory of reasoned action. This theory claims that action is determined by intention, which is influenced by attitudes and social norms. The theory of reasoned action posits that the relationship of all these variables are what guide behavior.

Because it is believed that attitudes influence behavior, student attitudes have been examined in the hopes of enhancing interest and participation in physical education settings. Macintosh and Albinson (1982), for example, compared the attitudes of two groups of 8th grade students, those taking a physical education class and those not taking one. They found that students who chose not to take physical education reported a less positive attitude toward physical education and reported having less fun. Prochaska, Sallis, Slymen, and McKenzie (2003) found that positive attitudes toward physical education increased participation both in physical education classes and in physical activity outside of school. Therefore, learning how children perceive, feel, and evaluate attitudes is a key to improving students' dispositions toward physical education and physical activity (Graham, 1995), which in turn may influence their participation in physical education. To this end, a great deal of research has been conducted investigation students' perceptions of physical education programs regarding their likes and dislikes of those programs (e.g., Aicinena, 1991; Carlson, 1994; Clark, 1971; Earl &

Stennett, 1987; Luke & Cope, 1994; Rice, 1988; Ryan, Fleming, & Maina, 2003; Solmon & Carter, 1995). Generally, this work revealed the majority of students had positive attitudes toward their physical education programs. They liked physical education programs because they had a variety of activities and sports to play, had opportunity for selecting activities, obtained fitness benefits, had nice teachers, and experienced enjoyment in those programs. In their studies, Rice (1988) and Solmon and Carter (1995) examined secondary and elementary school students' attitudes in a physical education domain. They found that liking the activity, liking sports, fitness benefits, and enjoyment were all reasons why students voluntarily took physical education. Luke and Cope (1994) found that student attitudes toward both physical education teachers and program content were positive in all grades 3, 7, and 10. Recently, Prochaska et al. (2003) studied elementary school students' attitudes by examining their enjoyment of physical education during a three-year period. Change in physical education enjoyment was examined by gender, ethnicity, and participation. The researchers observed that greater enjoyment was associated with more participation, better performance, and less adiposity.

While the majority of the students were found to have positive attitudes toward their physical education classes (Aicenena, 1991; Luke & Cope, 1994; Ratliffe, Imwold, & Conkell, 1994), some studies observed negative feelings among students toward physical education classes (Carlson, 1995; Ennis, 1996; Fox & Biddle, 1988; Rice, 1988). Boredom, physical discomfort, repetition, short class periods, and lack of meaningful work were the factors contributing to students' dislikes of physical education

(Fox & Biddle, 1988; Ratliffe et al., 1994; Rice, 1988). The competitive class environment, which identifies participants as “winners” and “losers,” was also a reason that made some students not like physical education (Carlson, 1995; Ennis, 1996; Portman, 1995; Robinson, 1990).

Graham et al. (1992), for example, examined elementary school children's thoughts and feelings about their physical education classes. They asked children to write to an imaginary friend who has never seen a physical education class about three things that would be fun and three that would not be fun in the class. They found that children identified fitness activities such as stretches and exercise as not fun and gave reasons like wasted time and boring. In a related study, Ratliffe et al. (1994) explored third grade students' perceptions of their physical education class. They reported that the majority of third grade students' dislikes centered on physical discomfort, (e.g., blisters from climbing the horizontal ladder, sweaty hands and getting tired in activities like running and sit-ups) while other dislikes reflected unhappy memories associated with not being successful in motor activities (e.g., not being able to hit the target and baskets (I can't reach)). They also found that likes centered on particular activities including gymnastics, using the parachute, jumping rope, monkey bar, playing tag, running the track, and dribbling. Graham (1995) concluded, "Clearly many students...appear to be dissatisfied and even alienated in their physical education classes" (p. 370).

Student attitudes are also an important correlate of achievement goals. Both classroom and physical education research revealed that students who endorsed mastery goals were more likely to display positive attitudes toward school/physical education

than students who did not endorse mastery goals. In their study of elementary school children, for example, Meece, Blumenfeld, and Hoyle (1988) found that mastery goals rather than performance goals were positively related to students' attitudes toward science.

Though considerable research on student attitudes has been conducted in physical education settings, little information is available concerning student attitudes toward after-school physical activity programs. The knowledge gained about what students think and feel about their experiences in after-school physical activity programs may be used to make those programs a valuable experience for them (Graham, 1995) and to produce physically educated individuals (Graham, Holt/Hale, & Parker, 1998; USDHHS, 1996). With such information, teachers and program administrators may be able to design and direct more effective physical activity programs to help children form positive attitudes, which in turn may lead to regular participation in physical activity. Therefore, there is a need to understand student attitudes toward after-school physical activity programs.

#### Students' Disruptive Behaviors

Disruptive behavior, sometimes called troublesome or misbehavior (McCormack, 1997; O'Hagan & Edmunds, 1982), has always been one of the most serious concerns of schools. This type of behavior disrupts not only teaching but also the learning focus of students (Fernandez-Balboa, 1991). It also interferes with a positive classroom climate, as well as students' social interactions, and may create an atmosphere that reduces student participation and engagement (Doyle, 1986; Kounin, 1970).

Because students' disruptive behaviors are detrimental to the ability of teachers to manage classes and to their own learning and achievement as well, many researchers have studied student disruptive behaviors in both the classroom and physical education (e.g., Anderson & Prawat, 1983; Borg, 1998; Borg & Falzon, 1990; Doyle, 1990; Kulinna, Cothran, & Regualos, 2003, 2006; Supaporn, 2000; Supaporn, Dodds, & Griffin, 2003). Supaporn (2000), for example, classified students' disruptive behaviors in physical education classes into four categories: (1) harassment (e.g., criticizing peers), (2) not paying attention (e.g., fooling around), (3) not complying (e.g., not participating), and (4) others (e.g., cheating and fighting). Kulinna et al. (2003) classified students' disruptive behaviors in physical education into six categories: (1) aggressive (e.g., "bullying"), (2) low engagement or irresponsibility (e.g., "doesn't participate"), (3) fails to follow directions (e.g., "doesn't line up right"), (4) illegal or harmful use of substances (e.g., "drug use"), (5) distracts or disturbs others (e.g., "giggling"), and (6) poor self-management (e.g., "late assignments").

In addition to identifying types of students' disruptive behaviors, some researchers have examined the reasons behind students' disruptive behaviors in the gymnasium (Belka, 1991; Cothran & Ennis, 1998; Fink & Siedentop, 1989; McCormack, 1997). This work revealed that teachers, physical education curriculum, school location, classroom ecology, students' ethnicities, and their emotional and behavior disorders were directly related to students' disruptive behaviors.

Supaporn et al. (2003), for example, investigated how the classroom ecology influenced participants' understanding of misbehavior in a middle school physical

education setting. They found that most misbehaviors students described were related to classroom rules, routines, and teacher expectations. Therefore, their study indicates the teachers' weak managerial task systems, coupled with vague and incomplete instructional tasks, could lead students to misbehave in class.

Clendenin, Businelle, and Kelley (2005) examined disruptive behaviors of children (ages 5 to 13 years) with emotional and behavioral disorders in a sports setting. They reported that compared to normal children, these children engaged more in aggression, emotional reactivity, and injury while participating in sports activities.

To help teachers effectively deal with students' disruptive behaviors, researchers primarily have adopted behaviorist approaches (e.g., ignoring, seclusion time, self-management training, positive reinforcement, proactive teaching, and reinforcing desired behavior). Studies conducted by Rhode, Morgan, and Young, (1983), Downing (1996) and DuPaul and Hoff (1998), for example, demonstrated efficacy of self-management procedures in reducing students' disruptive behaviors. Rhode et al. (1983) investigated the use of a self-evaluation procedure based on a contingency management system to decrease the frequency of inappropriate behaviors. Results of the intervention led to significant gains in appropriate behavior in the resource room setting that was maintained in the general education classroom after specific procedures to promote generalization were implemented. DuPaul and Hoff (1998) also examined the use of self-management strategies to decrease the disruptive behavior of elementary students. Participants in this study were three Caucasian students (age 9) selected from a fourth grade public elementary school that were identified as at-risk for conduct disorder. Data

were collected on verbal and physical aggression, non-interactive, negative, and off-task behavior. After applying self-management strategies, researchers found that students decreased their level of disruptive behavior in both the classroom and recess environment closer to the level of their classroom peers and maintained these results in the absence of teacher feedback. Oswald, Safran, and Johanson (2005), on the other hand, examined whether a multi-component Positive Behavior Support (PBS) intervention program, serving 950 sixth through eighth grade students, could reduce school students' misbehaviors. With assistance from university consultants, a PBS team developed a plan to reduce hallway disruptive behaviors for an intervention program consisting of positive practice, pre-correction, verbal praise, reinforcement, correction of inappropriate behavior, active supervision, discussion of behavior with students and on-time dismissal. After a five-week intervention period, researchers observed meaningful improvement for these students' disruptive behaviors.

More recently, researchers have attempted to apply achievement goal theory to the understanding of differences in the level of quality of students' behavior (Elliot, 1999; Kaplan, Gheen, & Midgley, 2002; Lemyre, Roberts, & Ommundsen, 2002; Pintrich, 1994). Papaioannou (1998), for example, examined Greek student discipline in elementary and secondary physical education within the dichotomous achievement goal model (i.e., mastery versus performance goals). He found that high-mastery-oriented students were more disciplined than their low-mastery-oriented counterparts were. Similar results were also reported by Lemyre et al. (2002). They investigated the impact of achievement goals on sportsmanship in elite children's soccer and found that children

high in mastery involvement reported less likelihood to engage in inappropriate behaviors.

In the academic domain, Kaplan and Maehr (1999) examined whether achievement goals could contribute to the psychological well-being of sixth grade students. In their study, students' self-reports of disruptive behavior were examined along with the indices of well-being (e.g., emotional tone and peer relationship). Results of the study revealed students' self-reports of disruptive behavior were negatively related to their mastery goals regardless of their ethnicity (African-American and Caucasian). However, a positive relationship between self-reported disruptive behavior and performance goals was found for African-American students only. The latter result seems to support what Kaplan and Maehr (1999) pointed out, "It is reasonable to assume that African-American students who pursue ego goals, and who are therefore concerned with demonstrating competence, might experience stronger anxiety that will contribute to lowered performance, negative affect, and disruptive behavior." (p. 333)

Extending the Kaplan and Maehr study (1999) to the trichotomous achievement goal model, Kaplan et al. (2002) examined whether achievement goals in mathematics emphasized in the classroom were related to self-reported disruptive behavior among ninth grade students with a diverse ethnic background. They reported that mastery goals were related to a lower level of self-reports of disruptive behavior and performance-approach and performance-avoidance goals were related to a higher level of self-reports of disruptive behavior. Additionally, they found that students who perceived that their teachers emphasized mastery goals in the classroom reported a lower level of disruptive



behavior and students who perceived that their teachers emphasized performance-approach goals reported a higher level of disruptive behavior. Taken together, the findings of the Kaplan and Maehr study (1999) and the Kaplan et al. study (2002) suggest it is reasonable to assume that students' achievement goals would be related to their disruptive behavior in the classroom.

In the domain of physical education and physical activity, however, few studies have been conducted linking achievement goals to students' disruptive behaviors. Inquiry in this area would be particularly significant to after-school physical activity programs. Compared to required physical education programs in school, after-school physical activity programs are less structured and participation is voluntary. These conditions could result in higher rates of student disruptive behaviors. If a link between students' achievement goals and their disruptive behaviors is established in the context of after-school physical activity, then achievement goal theory can be adopted to reduce student disruptive behaviors.

In summary, this chapter reviewed after-school programs, after-school physical activity programs, students' achievement goals, their attitudes, and disruptive behaviors. The results from the literature review indicated after-school physical activity programs could become valuable in our battle against childhood obesity in the United States if students are motivated to participate and to demonstrate high levels of engagement behaviors in these programs. As a result, there is a need for researchers and teachers alike to understand what motivates students to participate in these programs. Next, this chapter highlighted the importance of investigating students' achievement goals,

attitudes, and disruptive behaviors, as they are all critical to students' motivation and behavior in the context of after-school physical activity programs. Inquiry in this area can provide valuable information about what students think and feel about after-school physical activity programs and how they behave in these programs. With such information, it may be possible for teachers to create effective teaching environments where students' positive motivation is fostered, which in turn would promote active lifestyle and future participation in physical activities among students. Third, the results from the literature review revealed achievement goal theory was utilized to study students' disruptive behaviors in the classroom. In after-school physical activity settings, however, no research has been conducted linking achievement goals to students' disruptive behaviors. This is an important area of inquiry. Compared to required physical education programs in school, after-school physical activity programs are less structured and participation is voluntary. These conditions could result in higher rates of student disruptive behaviors. If a link between students' achievement goals and their disruptive behaviors is established in the context of after-school physical activity, then achievement goal theory can be adopted to effectively deal with student disruptive behaviors. Finally, the last section presents limitations and delimitations of this study.

#### Limitations

The present study involved the following limitations:

1. The results of the study may be specific to the subject population used.
2. All the measures were taken at one point in time.

### Delimitations

This study was delimited to:

1. Elementary school participants only.
2. Participants' age ranged from 8 to 12.
3. In an after-school physical activity program.
4. All participants were delimited to one elementary school located in south-central Texas.

## CHAPTER II

### THE STUDY

#### Introduction

Obesity in children and adolescents is a serious concern with many health and social consequences that often continue into adulthood (U. S. Department of Health and Human Services [USDHHS], 1996). Childhood obesity is the leading cause of pediatric hypertension, is associated with Type II diabetes mellitus, increases the risk of coronary heart disease, increases stress on weight-bearing joints, lowers self-esteem, and affects relationships with peers (USDHHS, 1996). Although these health, psychological, and social costs are well known, the number of children and teens who are overweight and obese has more than tripled since 1980. Specifically, among children and teens aged 6–19 years, 16 percent (over 9 million young people) are considered overweight or obese (Centers for Disease Control and Prevention [CDC], 2006). In Texas, for example, 35% of all children are overweight, and that number is predicted to double by the year 2040 if no changes occur (Wagner, 2004).

Statistics show that physical inactivity itself has contributed to a 100% increase in the prevalence of childhood obesity in the U.S. since 1980 (CDC, 2001). Inactivity rates are especially higher among at-risk children, persons of low socioeconomic levels, and persons with less education (Crespo et al., 2000; King et al., 2000). USDHHS (1996), for example, state that 22% of Hispanic children ages 6-11 were overweight, whereas 20% of African-American children and 14% of Caucasian children ages 6-11 were overweight. Andersen, Crespo, Barlett, Cheskin, and Pratt (1998) also found that

Caucasian children were the most active children. These statistics suggest that it is particularly critical to promote physical activity among African-American and Hispanic-American youth.

School physical education programs have been recognized as the most logical and practical environments to promote physical activity (Morgan et al., 2003; Sallis & McKenzie, 1991). Time allocated for physical education at schools, however, often fails to meet the recommendation that children and adolescents participate in at least 60 minutes of moderately intense physical activity daily (CDC, 2006). Additionally, physical activity levels of students during physical education classes have declined significantly since 1991 (CDC, 2004). It is reported that 24.7% of students who participated in physical activities took part in activities that did not make them sweat or breathe hard for at least 30 minutes on five or more of the past seven days in 2003 (CDC, 2004). Additionally, many school districts across the U.S. are reducing or eliminating physical education in their curriculum (National Association for Sport and Physical Education [NASPE], 1998). Up to 40% of the nation's youth are not even enrolled in physical education classes contributing further to already low levels of physical activity (USDDHS, 1996).

To address physical activity levels among children, we need to explore other avenues within school settings where physical activity levels may be enhanced. One such area may be after-school programs. If students are not meeting current activity levels recommended by CDC in physical education classes, perhaps after-school programs could provide additional opportunities to participate in a variety of physical

activities and facilitate the skills and knowledge necessary to support active, productive and healthy lifestyles (Annesi, Wescott, Faigenbaum, & Unruh, 2005; Watson, Poczwadowski, & Eisenman, 2000; Yin et al., 2005). After-school physical activity programs are particularly important for low socio-economic and minority elementary students. This is because sedentary behavior and obesity are often associated with ethnicity, religion, region, and gender (CDC, 2004; McMurray et al., 2000; Pate et al., 1996). African-American children, for example, participate in regular vigorous physical activity from 8% (boys) to 16% (girls) less than their Caucasian counterparts do (USDHHS, 1996). Therefore, low socio-economic and minority students should become a focus of research on after-school physical activity programs.

The effects of after-school programs on students' physical activity levels, however, depend largely on whether the students are motivated to participate and to demonstrate high levels of engagement behaviors in the programs. Both conceptual and empirical works demonstrate that motivation affects student engagement and achievement behavior in the domain of physical education and physical activity. Defined as the energization, direction, and regulation of behavior (Roberts, 2001), motivation influences student achievement behaviors such as activity choice, effort, persistence, and performance. This is because motivation is a driving force that "gets us going, keep us moving, and helps get job done" (Pintrich & Schunk, 1996, p. 4). To ensure successful participation and learning in after-school physical activity programs, teachers and researchers must know how to motivate students.

Chen (2001) emphasizes that motivation is essential to the promotion of physical

activity among children and calls for continued research in this area of inquiry. However, few studies have been conducted examining students' motivation and related cognitive, affective, and behavioral responses in the context of after-school physical activity programs. Therefore, this research focused on at-risk students' motivation, attitudes, and behaviors in an after-school physical activity program from an achievement goal theory perspective.

### *Achievement Goal Theory*

Achievement goals refer to the purposes students perceive for engaging in achievement-related behaviors and the meanings they ascribe to those behaviors (Ames, 1992; Dweck, 1986; Maehr, 1983). They are also defined as cognitive-dynamic focus of competence-relevant behavior (Elliot, 1997). Achievement goals can influence how students approach, experience, and perform in achievement settings. Over the past two decades, achievement goals and their cognitive, affective, motivational, and behavioral correlates among students have been examined extensively in a variety of achievement settings, including classrooms and physical education classes (Ames, 1992; Anderman & Maehr, 1994; Kaplan & Maehr, 1999; Nicholls, 1989; Solmon, 1996; Xiang & Lee, 2002). This work has primarily focused on two major goals (i.e., the dichotomous model): mastery goals and performance goals.

Mastery goals represent a focus on learning, improvement, and mastering skills, whereas performance goals concentrate on social comparison and demonstration of competence relative to others. Research focusing on these two types of goals reveals that mastery goals are associated with adaptive motivational patterns such as showing

intrinsic interest in learning, displaying positive attitudes toward school, and a belief that success is caused by effort. Performance goals are associated with less adaptive motivational patterns such as avoidance of challenging tasks and attributing success to ability (see Chen for a review, 2001).

This dichotomous achievement goal approach has been challenged by Elliot and his colleagues (Elliot, 1997; Elliot, 1999; Elliot & Church, 1997; Elliot & Harackiewicz, 1996). They proposed a trichotomous, approach-avoidance-achievement goal model. This is because a number of studies employing the dichotomous model revealed some mixed findings regarding performance goals and students' motivational patterns. 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 et al. (1997) found that performance goals were positively associated with academic performance among college students. In physical education, Xiang and Lee (2002) also observed that performance goals were positively related to self-reported mastery behaviors for fourth and eleventh grade students.

In the trichotomous model, the construct of mastery goals remain the same as that in the dichotomous model. The construct of performance goals, however, is divided into approach and avoidance goals. Performance-approach goals are defined as focusing on the attainment of favorable judgments of competence, while performance-avoidance goals focus on avoiding unfavorable judgments of competence (Church et al., 2001). Because of the division of the performance goal construct, the trichotomous model is



assumed to clarify the role performance goals play in students' cognitive, affective, and behavioral responses.

Recently, research conducted in classrooms generally supports the trichotomous model (Elliot & Church, 1997; McGregor & Elliot, 2002; Skaalvik, 1997; Vandewalle, 1997, Pintrich, 2000; Ryan & Pintrich, 1997). This work also has established links between performance-approach goals and positive student motivational responses such as task engagement and high performance on tests (Elliot & Church, 1997; Elliot & McGregor, 1999; Elliot et al., 1999; Harackiewicz et al., 1998; Harackiewicz et al., 2002) and between performance-avoidance goals and negative student motivational responses such as avoidance of help seeking and low achievement (Elliot & Church, 1997; Elliot & Harackiewicz, 1996; Elliot et al., 1999).

In the domain of physical education and physical activity, however, only a few studies applied the trichotomous model and reported similar findings. Performance-approach goals were found to be linked to positive motivational responses such as incremental beliefs about sports ability and low state anxiety, whereas performance-avoidance goals were found to be linked to negative motivational responses such as high state anxiety and low intrinsic motivation (Cury, 2000; Cury et al., 2003; Cury et al., 2002). Notably, the participants in these classroom and physical education achievement goal studies are mostly Caucasian, middle class students. More research effort should be made with low socio-economic and minority at-risk students to explore the utility and the meaningfulness of the trichotomous model in understanding student achievement goals and related motivational responses in physical education and physical activity

settings.

*Students' Attitudes Toward After-School Physical Activity Programs*

Attitudes are defined as an individual's evaluation of beliefs and feelings (positive or negative) about the attribute objects (Eagly & Chaiken, 1993; Gonzales, 1992; Mohsin, 1990). In physical education settings, Anshel et al. (1991) defined student attitudes as the perceptions of students concerning teachers and physical activity that affects the process of learning and motivation. Campbell (1968) stated, "attitudes play an important role because the attitude determines an individual's willingness to learn" (p. 456).

Students' attitudes have long been an important topic in physical education research. This is because the development of student positive attitudes toward physical education is a major goal in physical education programs. Research focusing on student attitudes can provide valuable information about what students think, feel, and know about physical education (Graham, 1995). With such information, teachers could design more effective physical education programs to help children form positive attitudes, which in turn may lead to regular participation in physical activity.

Student attitudes are also important correlates of achievement goals. Both classroom and physical education research revealed that students who endorsed mastery goals were more likely to display positive attitudes toward school/physical education than students who did not endorse mastery goals. In their study of elementary school children, for example, Meece et al. (1988) found that mastery goals rather than performance goals were positively related to students' attitudes toward science.

Though considerable research on student attitudes has been conducted in physical education, little information is available concerning student attitudes toward after-school physical activity programs. The knowledge gained about what students think and feel about their experiences in after-school physical activity programs may provide insightful information for the design and directions of future after-school physical activity programs.

#### *Students' Disruptive Behaviors*

Disruptive behavior, sometimes called troublesome or misbehavior (McCormack, 1997; O'Hagan & Edmunds, 1982), has always been one of the most serious concerns of schools. This type of behavior disrupts not only teaching but also the learning focus of students (Fernandez-Balboa, 1991). It also interferes with a positive classroom climate, as well as students' social interactions, and may create an atmosphere that reduces student participation and engagement (Doyle, 1986; Kounin, 1970).

Because students' disruptive behaviors are detrimental to the ability of teachers to manage classes and to their own learning and achievement as well, many researchers have studied student disruptive behaviors in the classroom and physical education (e.g., Anderson & Prawat, 1983; Doyle, 1990; Kaplan et al., 2002; Kaplan & Maehr, 1999; Supaporn, 2000; Supaporn et al., 2003). Supaporn (2000), for example, classified students' disruptive behaviors in physical education classes into four categories: (1) harassment (e.g., criticizing peers), (2) not paying attention (e.g., fooling around), (3) not complying (e.g., not participating), and (4) others (e.g., cheating and fighting). Kulinna et al. (2003) classified students' disruptive behaviors in physical education into six

categories: (1) aggressive (e.g., “bullying”), (2) low engagement or irresponsibility (e.g., “doesn’t participate”), (3) fails to follow directions (e.g., “doesn’t line up right”), (4) illegal or harmful use of substances (e.g., “drug use”), (5) distracts or disturbs others (e.g., “giggling”), and (6) poor self-management (e.g., “late assignments”). Some researchers (e.g., Kaplan & Maehr, 1999; Kaplan et al., 2002) also suggest that behaviorist approaches, such as self-management training, positive reinforcement, and reinforcing desired behavior, are not enough to effectively deal with disruptive behaviors. As a result, there is a need for researchers to find other approaches to study student disruptive behaviors.

Kaplan and Maehr (1999) proposed that achievement goal theory could offer a viable theoretical perspective to the study of students’ disruptive behaviors. They found that students’ self-reports of disruptive behaviors were negatively related to their mastery goals and positively related to their performance-approach goals. In the domain of physical education and physical activity, however, few studies have been conducted linking achievement goals to students’ disruptive behaviors. Inquiry in this area would be particularly significant to after-school physical activity programs. Compared to required physical education programs in school, after-school physical activity programs are less structured and participation is voluntary. These conditions could result in higher rates of student disruptive behaviors. If a link between students’ achievement goals and their disruptive behaviors is established in the context of after-school physical activity, then achievement goal theory can be applied to help teachers deal with student disruptive behaviors.

### *Purposes*

This study utilized the trichotomous model to examine achievement goals, attitudes, and disruptive behaviors among elementary school students in an after-school physical activity program. The purposes of the study were fivefold: (1) to examine the reliability and validity of the scores generated by the trichotomous model, (2) to identify achievement goals endorsed by students, (3) to examine students' attitudes toward the program, (4) to identify students' disruptive behaviors, and (5) to examine the relationships among students' achievement goals, attitudes, and their disruptive behaviors.

### *Research Questions*

The following research questions were addressed by this study:

1. Are three achievement goal scores (mastery, performance-approach and performance-avoidance goals) produced by the trichotomous model reliable and valid for a group of at-risk elementary school students in the context of an after-school physical activity program?
2. What achievement goals do students endorse in their after-school physical activity classes?
3. Do students have positive attitudes toward their after-school physical activity classes?
4. To what extent do students demonstrate disruptive behaviors in their after-school physical activity classes?
5. What are the relationships among children's achievement goals, attitudes, and

disruptive behaviors?

### *Predictions*

The following predictions were made based on the reviewed literature.

1. The three achievement goal scores produced by the trichotomous model will be reliable and valid for this group of at-risk elementary after-school physical activity students.
2. Students in this study will report higher scores on mastery goals than performance-approach and performance-avoidance goals.
3. Students will display positive attitudes toward their after-school physical activity classes.
4. Students will demonstrate disruptive behaviors identified in the reviewed literature.
5. Students who endorse mastery goals will be more likely to display positive attitudes and less likely to demonstrate disruptive behaviors than students who endorse either performance-approach or performance-avoidance goals.

### Methods

#### *The Setting and Participants*

This study was conducted in a federally funded 21st Century Community Learning Centers' (21st CCLC) after-school program serving mostly at-risk African-American and Hispanic-American third, fourth, fifth, and sixth graders (Texas Education Agency [TEA], 2007). The 21st CCLC after-school programs nationwide are designed to capture an underused portion of the day to provide additional academic and learning

opportunities that complement the school day in addition to mentoring young people by caring adults. They also offer lifelong learning opportunities for community members and a safe place to support these activities during the after-school hours (Chung et al., 2002).

The 21st CCLC after-school program, which is presented in this dissertation, includes five programs: reading, science, math, physical activity, and enrichment. For the regular school year, the program starts at 3:00 p.m. and ends at 6:00 p.m. from Mondays to Thursdays; for the summer, it runs from 8:00 a.m. to 3:00 p.m. five days a week for one month only. Participants rotate through the five programs with intervals of 30 minutes during the school year and 45 minutes during the summer.

The primary focus of the physical activity program within this 21st CCLC program is to provide students opportunities to engage in maximum amounts of enjoyable moderate-to-vigorous physical activity (MVPA), to develop positive attitudes toward physical activity, and to learn about physically active and healthy lifestyles. To this end, the Coordinated Approach to Child Health (CATCH; Luepker et al., 1996) is adopted as a curricular program. Originally titled the Child and Adolescent Trial for Cardiovascular Health, CATCH is a program based on a school-based research study funded by the National Heart, Lung, and Blood Institute (NHLBI). It is a developmentally appropriate physical activity program which promotes healthy food choices, health related fitness, skill competency, and cognitive understandings about the importance of physical activity among children (Luepker et al., 1996). Aerobic games,

sports, jumping rope, parachute activities, and muscular strength games are the major content areas of the CATCH program.

Participants included 158 (68 boys and 90 girls) third, fourth, fifth, and sixth grade students enrolled in this federal funded 21st CCLC after-school program in a rural school district located in south-central Texas. Participants came from one public elementary school and their age ranged from 8-12 years. Racial and ethnic distribution for participants consisted of 76.6% African-American, 17.1% Hispanic-American, 5.1% Caucasian, and 1.3% not reported. The student population of the school district consisted of children from families of lower to middle income. Approximately 90% of the students in the school were eligible for free or reduced lunch. Participation was voluntary and permission from the institution, parents, and children was obtained.

#### *Instrumentation*

Questionnaires, observations, and interviews were used to collect the data for this study. Additionally, data on students' attendance were collected as a behavioral indicator of their attitudes toward the after-school physical activity program.

*Questionnaire.* Participants completed a 34-item questionnaire entitled "Children's Achievement Goals and Related Attitudinal and Behavioral Responses in After-School Physical Activity Program." It consisted of two-sections. Section one requests demographic information including student name, age, gender, race, school, and grade level. Section two consists of 15 items to assess student achievement goals, 5 items to assess students' attitudes toward their after-school physical activity program, and 14 items to assess student disruptive behaviors. The items are prefaced with the



heading, “IN MY AFTER- SCHOOL PHYSICAL ACTIVITY CLASSES...” These items are shown in Appendix A. They were all pilot tested for reading level and response scale prior to data collection with a sample of 50 nonparticipating students at grades 3-6 in their physical activity classes.

*Achievement goals.* This construct was assessed with 15 items adapted from the Task and Ego Orientation in Sport Questionnaire (TEOSQ, Duda & Nicholls, 1992) and the instrument designed to assess mastery, performance-approach, and performance-avoidance goals in the study by Elliot and Church (1997). The TEOSQ has been adapted successfully for physical education settings and generated reliable and valid data (Xiang & Lee, 1998, 2002; Xiang et al., 2004). The instrument developed by Elliot and Church assessed undergraduate students’ achievement goals in the context of academics. For the purpose of the present study, the instrument was modified to fit the context of an after-school physical activity program. Additionally, the 7-point scale of the instrument was reduced to a 5-point scale to simplify the response options for this group of elementary school students. The 15 items reflect three achievement goals with five items for each goal: mastery, performance-approach, and performance-avoidance. Students rated each item on a 5-point scale ranging from 1 (not at all true) through 5 (very true).

*Student attitudes.* To assess students’ attitudes toward their after-school physical activity program, five items were constructed from a review of the literature (Rice, 1988; Subramanian & Silverman, 2000). Students rated each item on a 5-point scale ranging from 1 (strongly disagree) through 5 (strongly agree).

*Attendance.* Students' attendance served as a behavioral indicator of their attitudes toward the after-school program in this study. This is based on the assumption that students who had positive attitudes toward the after-school physical activity program would be more likely to attend than students who did not have positive attitudes. The data on students' attendance for the spring and summer of 2006, a period during which the present study occurred, were obtained from the CLCC program coordinator. During this period, there were a total of 61 days (41 days for the spring; 20 days for the summer) for students to attend. Therefore, a number of days students actually participated in the program were used to measure the attendance variable.

*Student disruptive behaviors.* Disruptive behaviors were assessed with an adaptation of an instrument reported by Kulinna et al. (2003). The instrument consisted of six dimensions of disruptive behaviors (aggressive, disturbing others, failing to follow directions, low engagement or irresponsibility, illegal or harmful, and poor self-management). Students were asked to rate how often each of the six disruptive behaviors occurred in their physical education class on a 1 (never) to 5 (always) scale. For the present study, only disturbing others, failing to follow directions, and low engagement or irresponsibility were included because the remaining three dimensions of disruptive behaviors seldom occurred among the participants in this study based on the researcher's two-year observation. The revised instrument consists of 14 items, requiring students to indicate whether they displayed disruptive behaviors in class on 5-point Likert-type scale, ranging from 1 (not like me) through 5 (very much like me).

*Observations.* In addition to self-report data of student disruptive behaviors, observation data were collected for two reasons. First, previous research demonstrated that mastery goals were related to less disruptive behaviors whereas performance-approach and performance-avoidance goals were related to more disruptive behaviors (Kaplan et al., 2002; Kaplan & Maehr, 1999). However, disruptive behaviors in those studies were self-reported. Therefore, there is a need to extend this research work to objective measures of student disruptive behaviors. Second, observational data have greater external or ecological validity than behavior rating scales because they provide a measurement of the behavior as it is actually occurring in the school context (Nock & Kurtz, 2005).

Nine students were selected for observation based on their achievement goal scores. Three were high in the mastery goals ( $M = 4.53$ ,  $SD = .23$ ), three were high in the performance-approach goal ( $M = 4.86$ ,  $SD = .23$ ), and three were high in the performance-avoidance goal ( $M = 4.86$ ,  $SD = .11$ ). Observation of these students focused on three types of disruptive behaviors: (1) disturbing others (e.g., talking), (2) failing to follow directions (e.g., does not line up right), and (3) low engagement or irresponsibility (e.g., does not participate) (see Appendix B).

*Interviews.* To gain additional data on students' attitudes toward their after-school physical activity program and provide triangulation between the questionnaire data and the interview data, 20 students who did not participate in observations, were randomly selected and interviewed individually. All names were changed to pseudonyms to protect students' rights to confidentiality. Interview questions included:

- (1) How did you feel about this after-school physical activity program?
- (2) What did you like the most about this after-school physical activity program?  
Why?
- (3) What did you like the least about this after-school physical activity program?  
Why?
- (4) Could you tell me two or three good things that happened to you because you participated in this after-school physical activity program? Why?
- (5) If you were the teacher what would you like to do differently? Why?

### *Procedures*

All the data were collected during the spring and summer semesters of 2006. The questionnaires were administrated by the researcher to students during regularly scheduled after-school physical activity classes. Each item was read aloud to the students. They were also encouraged to answer as truthfully as they could and to ask questions if they had difficulty understanding instructions or items in the questionnaire. They were also informed that their teachers would not have access to their responses. To ensure the independence of their responses, the researcher had students spread out so that they could not see one another's responses. The questionnaire took approximately 30 minutes to administer.

Upon completion of the questionnaires, 20 students were randomly selected and interviewed individually during their regularly scheduled after-school physical activity classes. All interviews took place in the gymnasium office and lasted 15-20 minutes. As mentioned earlier, the interview consisted of five primary questions but allowed for

some follow-up probe questions if needed to obtain additional information. All interviews were audio taped and then transcribed for the purpose of data analysis.

After all interviews were completed, nine students not interviewed were selected for disruptive behavior observation. Among them, three scored high in the mastery goal, three scored high in the performance-approach goal, and three scored high in the performance-avoidance goal. To collect and record disruptive behaviors among these students in classes, the researcher used one handheld video camera standing in a corner of the gymnasium. The researcher also used a cordless microphone system to capture participants' verbal behaviors. Recording started as students sat on their assigned spots awaiting the teachers and ended as they left the gymnasium. Each of the nine students was videotaped individually for three consecutive 30-minute lessons, resulting in 27 lessons.

To minimize the effect of videotaping on students' behaviors, two strategies were taken. First, the researcher videotaped students before actual observation data collection occurred in order for them to become accustomed to being videotaped. Second, the researcher clearly communicated to students orally that videotaping was just for him to understand what was going on in their physical activity classes (i.e., whatever they would have been doing had the camera not been in the gymnasium).

#### *Data Analysis*

*Questionnaire data.* As a preliminary analysis, a one-way multivariate analysis of variance (MANOVA) was conducted to examine if there were grade-related differences in students' achievement goals, attitudes, and disruptive behaviors. The

results of the preliminary analysis would provide a basis as to whether the data from students at grades 3, 4, 5 and 6 should be combined for subsequent analyses.

Second, using Analysis of Moment Structures (AMOS), Version 5.0 (AMOS 5.0; Arbuckle, 2003), confirmatory factor analyses (CFA) were conducted on items measuring achievement goals and disruptive behaviors to examine the factorial validity and to guide scale construction. No information is available concerning the factorial validity of these constructs with at-risk children in the context of an after-school physical activity program. When using CFA, the chi-square statistics assesses absolute fit of the model but it is sensitive to sample size. As a result, a variety of fit indexes is suggested to evaluate the fit of the specified model(s) (Jöreskog & Sörbom, 1993). They include comparative fit index (CFI), Bentler and Bonnett's Non-normed fit index (NNFI), root mean square error of approximation (RMSEA), and ratio of chi-square to degrees of freedom. CFI and NNFI exceeding .90 are generally considered to indicate a good fit and exceeding .95 are considered to indicate an excellent fit (Hatcher, 1994; Hu & Bentler, 1995). Additionally, a RMSEA of less than .10 is considered indicative of an adequate fit and less than .05 is considered to an excellent fit (Browne & Gudeck, 1993). Finally, the chi-square to degrees of freedom ratio should be less than 3.0 for an adequate fit (McIver & Carmines, 1981).

Third, exploratory factor analysis (EFA) was conducted to examine the construct validity of students' attitudes. There are three major approaches to assess the model fit in an EFA. The first approach is the proportion of variance contributed by the underlying factors. Generally, if the factors account for 50%-80% of the variance, the model fits the

data. Another approach is called the Kaiser-Eigenvalues rule. It refers to the sum of the squared loadings of the indicators on the factor with which the eigenvalue is associated and simply states that the number of factors is equal to the number of factors with eigenvalues greater than 1.0. The last and most common used approach is Cattell's Scree Test that "is a visual representation of descending eigenvalues (or variance accounted for) associated with each factor" (Heck, 1998; p.188).

Fourth, descriptive statistics were conducted to provide an overall outlook of students' achievement goals, attitudes, and disruptive behaviors. Then one-way repeated measures ANOVA was performed to test significant differences among the three achievement goals reported by the students. Bonferroni post hoc tests were conducted to determine which of the means differs significantly from each other (Field, 2000).

Fifth, the Pearson product-moment coefficients of correlation ( $r$ ) were computed to determine relationships among students' achievement goals, attitudes toward the program, attendance, and their disruptive behaviors.

Finally, hierarchical multiple regressions were conducted to examine such relationships. More specifically, achievement goals (mastery, performance-approach, and performance-avoidance) served as predictor variables and students' attitudes, attendance, and disruptive behaviors served as criterion variables. Considering the research findings that mastery goals are more strongly related to positive educational and behavioral responses than performance-approach and performance-avoidance goals (e.g., Cury et al., 2003; Elliot, 1999; Guan, 2004; Kaplan & Maehr, 1999), for hierarchical multiple regression analyses on students' attitudes and attendance, the mastery goal was

entered first, then the performance-approach goal and finally the performance-avoidance goal. However, for those analyses on disruptive behaviors, the performance-approach goal was entered first, then the performance-avoidance goal and finally the mastery goal.

*Observation data.* The Disruptive Behavior Observation Form, which was adapted from an instrument developed by Kulinna et al. (2003), was used to code student disruptive behaviors (see Appendix B). As mentioned earlier, the instrument assessed six dimensions of student disruptive behaviors (aggressive, disturbing others, failing to follow directions, low engagement or irresponsibility, illegal or harmful, and poor self-management). However, only three of them were examined in the present study. This is because disturbing others, failing to follow directions, and low engagement or irresponsibility were the most common disruptive behaviors among the children in the after-school physical activity program based on the researcher's observation for the past two years when he served as the physical education coordinator of the program.

Prior to the coding, two observers were trained. Training included reviewing and studying the research literature on student disruptive behaviors and a 2-hour practice session. The practice session involved viewing videotapes, discussing dimensions and their subcategories, simultaneous coding followed by discussion, and separate coding of videotapes for comparison. The coded lessons were similar to those videotaped for the present study.

During the coding process, a tally of any disruptive behaviors was made for an interval of every 15 seconds, which was signaled by a recorded audiotape prepared by the researcher. Therefore, the number of tallies for a given disruption behavior was



determined by its duration. For example, if a disruptive behavior, disturbing others, lasted longer than 15 seconds but less than 30 seconds, two tallies were made. No tally was marked when no disruptive behavior occurred. The resulting summary variables for each of the nine selected students, therefore, represented the frequencies of the disruptive behaviors s/he displayed across the three lessons observed. To examine if there is any association between achievement goals and disruptive behaviors, a chi-square analysis was performed.

To establish the interobserver reliability, the two observers coded the four students' videotapes (45% of the total videotapes) independently. Percentages of agreement were determined by comparing the coders' total number of agreement for each of the three dimensions. Interobserver agreement ranged from 90% to 100% within each dimension, with overall agreement of 95% before actual coding of the videotapes occurred. To ensure reliability over the course of coding, an interobserver agreement check occurred at the study's midpoint and yielded 95% agreement. Additionally, intraobserver agreement was established by the researcher, who coded 30% of the videotapes before actual coding was implemented. The agreement reached 95% or higher for each dimension.

*Interview data.* All interviews were analyzed using constant comparative method (Glaser & Strauss, 1967). The researchers transcribed all interviews and then read and reread them looking for trends and explanations indicating how students were interpreting their attitudes toward the after-school physical activity program. More specifically, three stages comprised the analysis process. First, two researchers, who had

training in qualitative research, read the transcript data from each student individually, categorized the data, merged categories into themes, and maintained a list of themes.

The basic unit of analysis was defined as any phrase or sentence that was conceptually consistent with one theme or another. For example, the statement, “I have fun because I play different games that I can’t do in other classes like in reading, science, or math,” was coded as having fun. This process continued until no new themes emerged, or could be integrated into existing themes. The second stage included the researchers analyzing the categories and themes by comparing them to one another and checking against the data. In the third stage, themes were delimited and refined, if necessary. Disagreements between the researchers regarding coding were discussed until 100% agreement occurred, so that all final coding were consensual.

To ensure the trustworthy data interpretation, four strategies were taken. First, prolonged engagement (Lincoln & Guba, 1985) was used to allow the researcher to become familiar with the participants and the program and thus reduce the possibility of misinformation or perceptual distortions. The researcher of this study served as the coordinator of the program for two years before the data collection occurred. Second, peer debriefing occurred on a regular basis in which the researcher’s peers were asked to review the data analysis and interpretations. This peer debriefing aided in exposing any unfounded interpretations and overlooked themes from the data (Lincoln & Guba, 1985). Third, upon the completion of data analysis, everything from audiocassette tapes to the final interpretations was given to an “auditor,” who was familiar with qualitative research. The “auditor” examined the data analysis process to ensure that the conclusions

were logically supported by the original data (Lincoln & Guba, 1985). Finally, triangulation of the data provided a comparison between the attitude questionnaire data and those from the interviews.

## Results

Results of this study are reported in two sections. The first section focuses on quantitative analyses of students' achievement goals, attitudes toward the program including the variable of attendance, disruptive behaviors, and the relationships among these variables. The second section includes qualitative analyses of the interview data on students' attitudes toward the program.

### *Section I: Quantitative Analyses*

*Preliminary analysis.* Prior to the MANOVA analysis, the assumption of multivariate normality and homogeneity of variance-covariance matrices was examined for the variables of achievement goals, attitudes, and disruptive behaviors. The values of skewness for these variables ranged from -.01 to -1.27, indicating they were approximately normally distributed. The Box M test further revealed the assumption of homogeneity of variance-covariance was met ( $F = .87, p = .67$ ). Results of the MANOVA yielded no significant differences between achievement goals, attitudes, and disruptive behaviors among students at grades 3, 4, 5 and 6 (Wilks'  $\lambda = .825, F(21, 426) = 1.408, p = .109, \eta^2 = .062$ ). Consequently, the data from these students were combined for the subsequent analyses.

*Confirmatory factor analysis of students' achievement goals.* A confirmatory factor analysis (CFA) was conducted to test for the three distinct types of achievement

goals (mastery, performance-approach, and performance-avoidance) proposed by the trichotomous model. The results indicated all indices ( $\chi^2/df = 1.57$ , CFI = .92, NNFI = .90, and RMSEA = .06) represent an acceptable fit between the three-factor model and the data (see Table 1 on p. 53). However, for the fit to be excellent, RMSEA should be less than .05 and CFI and NNFI should be higher than .95. To improve the model fit, two steps were taken. First, an examination of the factor loadings revealed that item 8 (I do not look like that I cannot do activities) loaded weakly on the performance-avoidance goal (.36). Factor loadings, however, should be equal or larger than .40 (Clark & Watson, 1995; Floyd & Widaman, 1995). Therefore, this item was removed.

Second, modification indices were examined. The examination of modification indices provides a guide for path additions to the model (Arbuckle, 1997; Bryne, 1998; Kline, 1998). If a modification index between two items is high in relation to other modification indices, it suggests that the addition of a path will improve the overall fit of the model. Based on the modification indices provided by AMOS, a path of covariance was added between error terms for items 10 (Others cannot do as well as me) and 11 (I am the only one who can do the play or activity). Both items measure the performance-approach goal, and are characterized by social comparison. Another path of covariance was also added between error terms for items 2 (I try to learn as much as possible) and 4 (I learn something that is fun to do). The two items reflect the emphasis on learning, which is the essence of the mastery goal. As seen in Table 1 on p. 53, the final model demonstrated an excellent fit ( $\chi^2/df = 1.09$ , CFI = .99, NNFI = .98, and RMSEA = .02) with factor loadings ranging in size from .40 to .84 (see Figure 1 on p. 54). As a result,

scales of mastery, performance-approach, and performance-avoidance goals were constructed by averaging the items on the scales. Cronbach's (1951) alphas for the three scales were .74, .85, and .71, respectively, indicating acceptable internal consistency.

*Confirmatory factor analysis of students' self-reported disruptive behavior.* A confirmatory factor analysis (CFA) examined the factorial validity of the items measuring students' disruptive behaviors (i.e., disturbing others, failing to follow directions, and low-engagement or irresponsibility). The results indicated there were three distinct disruptive behaviors represented in the data set. Table 1 on p. 53 indicates all indices ( $\chi^2/df = 1.88$ , CFI = .93, NNFI = .91, and RMSEA = .07) represented an acceptable fit between the three-factor model and the data. To improve the fit to be excellent, some modifications were made. Specifically, based on the modification indices provided by AMOS, a path of covariance was added between error terms for items 1 (I sometimes giggle with my friends while my teachers are talking) and 3 (I sometimes talk with my friends while my teachers are talking), and between error terms for items 10 (I sometimes make fun of other students) and 14 (I sometimes keep others from working). All these four items assessed students' behaviors that disturb others. The similarity in wording and content justified that errors among them were allowed to correlate. Additionally, a path of covariance was added between error terms for items 2 (I sometimes do not participate) and 13 (I sometimes pretend to be sick so I would not participate in class). The two items assessed students' low engagement behaviors. As indicated in Table 1, the final model demonstrated an excellent fit ( $\chi^2/df = 1.47$ , CFI = .96, NNFI = .95, and RMSEA = .04) with factor loadings ranging in size from .40 to .74

(see Figure 2). As a result, scales of disturbing others, failing to follow directions, and low-engagement or irresponsibility were constructed by averaging the items on the scales. Cronbach's (1951) alphas for the three scales were .74, .79, and .75, respectively, indicating acceptable internal consistency.

*Exploratory factor analysis of students' positive attitude.* Given that there is no prior knowledge of the number of factors underlying students' attitudes toward the program, an exploratory factor analysis was performed on the items measuring students' attitudes. As shown in Appendix A, this scale consists of five items reflecting students' attitudes toward their after-school physical activity program. Because of the use of positive expressions (e.g., I like my after-school physical education classes because we do many different things) in the questionnaire items, the term "positive attitudes" will be used throughout the paper. A principal components analysis with VARIMAX rotation revealed a single factor with an eigenvalue exceeding 1 (see Table 2). The scree plot confirmed it (see Figure 3). The factor accounted for 54.01% of the variance and all factor loadings were between .61 and .80. As a result, an overall score for students' positive attitudes was computed by averaging the items on the scale for each student. The Cronbach's alpha coefficient of this scale was .77.

Table 1

*Fit Indices of the Trichotomous Achievement Goal Model and Disruptive Behaviors*

*(N = 158)*

Indexes	Trichotomous Model		Disruptive Behaviors	
	Initial CFA	Final Revised CFA	Initial CFA	Final Revised CFA
$\chi^2/df$	1.57	1.09	1.85	1.47
CFI	.92	.99	.93	.96
NNFI	.90	.98	.91	.95
RMSEA	.06	.02	.07	.04

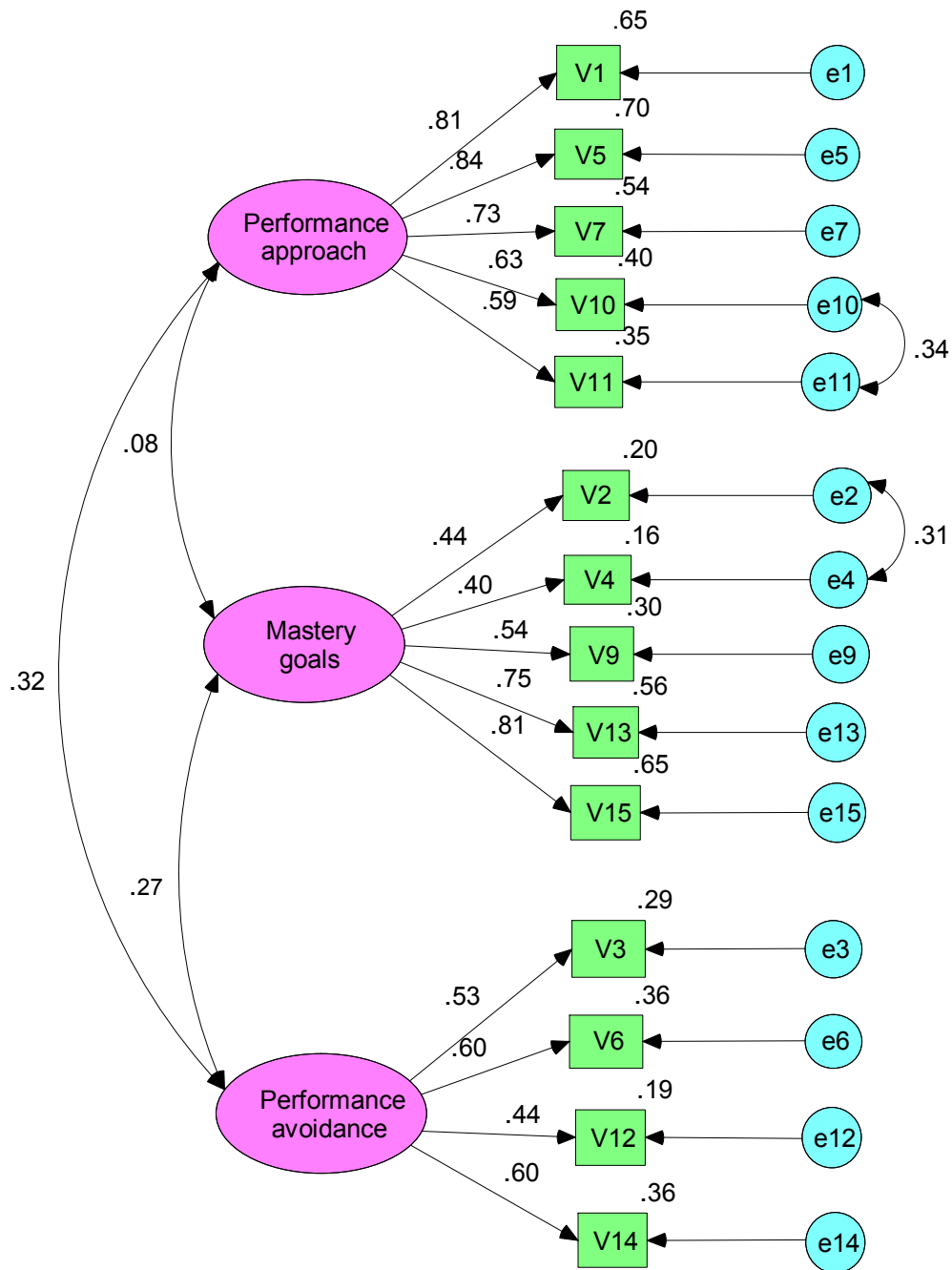


Figure 1. Final confirmatory factor analysis (CFA) model of the trichotomous achievement goal model.



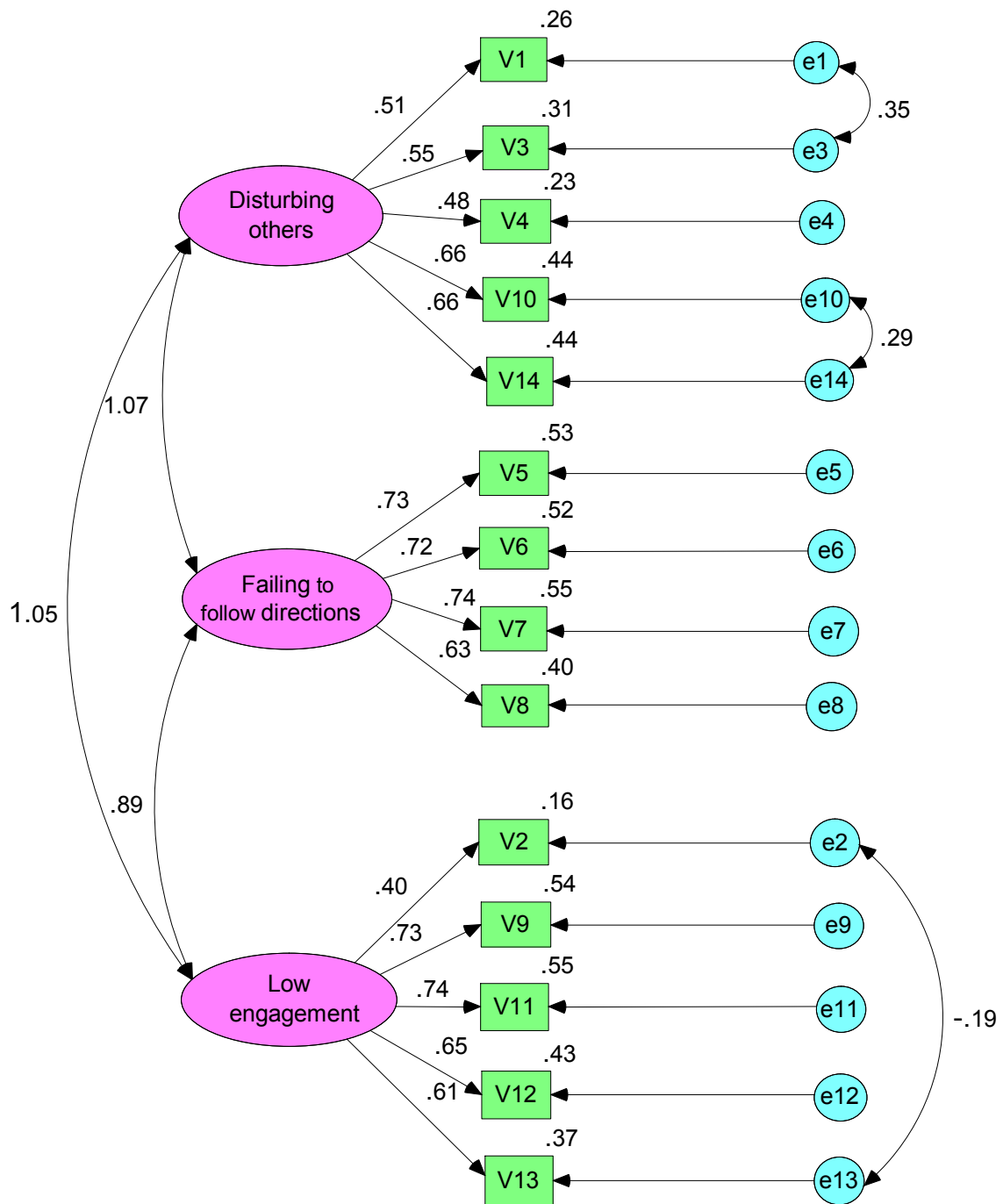
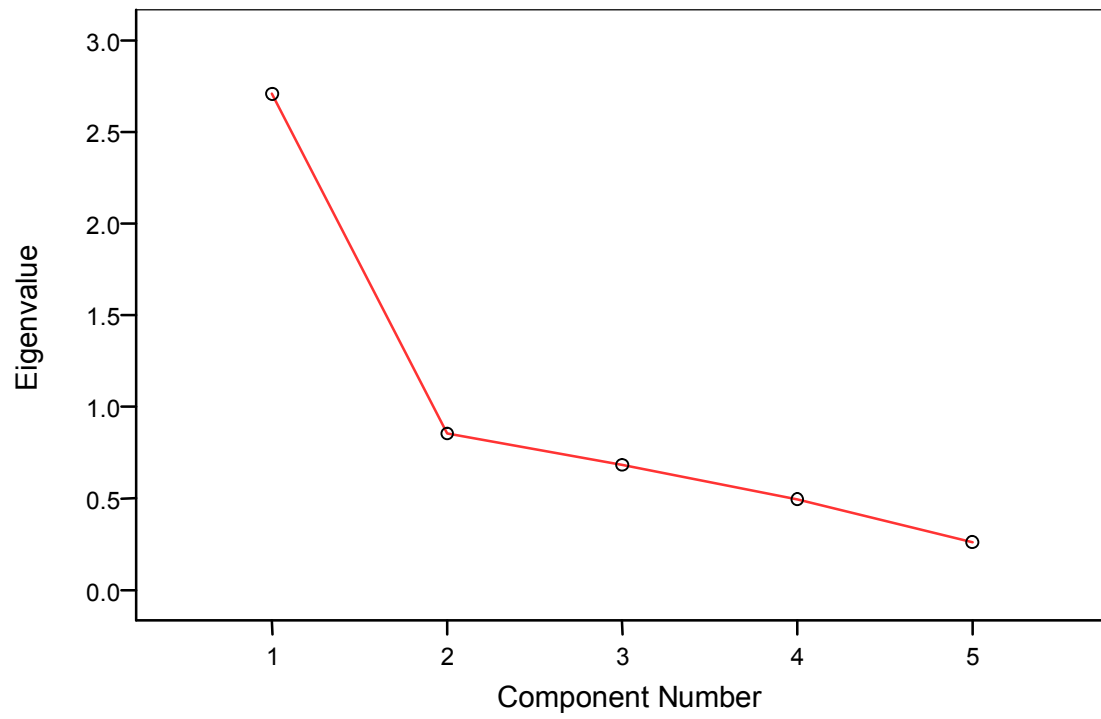


Figure 2. Final confirmatory factor analysis (CFA) model of students' self-reported disruptive behaviors.

Table 2

*Exploratory Factor Analysis on Students' Positive Attitudes*

Attitude Items	Factor 1
1. I like my after-school physical education classes because I do many different things	.80
2. I like my after-school physical education classes because I learn new games	.75
3. I like my after-school physical education classes because I learn to make healthy food choices	.73
4. I like my after-school physical education classes because I have fun	.77
5. I like my after-school physical education classes because I move around a lot	.61
Eigenvalue	2.70
% of variance	54.01



*Figure 3.* The eigenvalues of students' positive attitudes.

*Descriptive and one-way repeated measures ANOVA analyses.* Descriptive statistics are presented in Table 3. The mean scores of the mastery, performance-approach and performance-avoidance goals ( $M = 4.20, SD = .78$ ;  $M = 3.05, SD = 1.15$ ;  $M = 3.40, SD = .97$ , respectively) were all above the midpoint (i.e., 3) of the scales, suggesting that students in this study endorsed all three achievement goals. The mean score of students' positive attitudes ( $M = 4.45, SD = .67$ ) was also above the midpoint of the scale (i.e., 3), indicating that students had a positive attitude toward the after-school physical activity program. Additionally, as a behavioral indicator of students' attitudes, the average number of days students actually attended the after-school physical activity program over the spring and summer semesters was 38.17, while a total of required days was 61. This suggests the attendance level of this group of students was moderate at best. Finally, the mean score of disturbing others ( $M = 3.04, SD = 1.13$ ) was just above the midpoint of the scale (i.e., 3), while the mean scores of failing to follow directions ( $M = 2.84, SD = 1.26$ ) and low engagement or irresponsibility ( $M = 2.69, SD = 1.17$ ) were below the midpoint of the scales. Overall, these mean scores suggest that students felt that these disruptive behaviors were sort of like them in the after-school physical activity classes.

Results of the one-way repeated measures ANOVA revealed significant differences among the three achievement goals,  $F(2, 314) = 66.29, p < .001$ , partial  $\eta^2 = .30$ , after the violation of the assumption of sphericity, as indicated in Mauchly's test ( $\chi^2(2) = 7.53, p < .05$ ), had been addressed by correcting the degrees of freedom using Huynh-Feldt estimates of sphericity ( $\epsilon = .96$ ). Bonferroni post hoc tests indicated

students scored significantly higher on the mastery goal than the performance-approach and performance-avoidance goals. Students also scored significantly higher on the performance-avoidance goal than the performance-approach goal.

Table 3

*Descriptive Data for Achievement Goals, Positive Attitudes, Attendance, and Disruptive Behaviors*

	<i>M</i>	<i>SD</i>	Range
Achievement Goals			
1. Mastery Goals	4.20	.78	1.00-5.00
2. Performance Approach	3.05	1.15	1.00-5.00
3. Performance Avoidance	3.40	.97	1.00-5.00
Positive Attitudes	4.45	.67	1.00-5.00
Attendance (Days)	38.17	15.08	6.00-61.00
Disruptive Behaviors			
1. Disturbing Others	3.04	1.13	1.00-5.00
2. Failing to Follow Directions	2.84	1.26	1.00-5.00
3. Low Engagement or Irresponsibility	2.69	1.17	1.00-5.00

*Correlational analyses.* As shown in Table 4, Pearson product-moment correlations revealed the mastery goal was unrelated to the performance-approach and performance-avoidance goals. The performance-approach goal, on the other hand, was positively related to the performance-avoidance goal.

Table 4

*Intercorrelations Among Variables*

Variable	1	2	3	4	5	6	7	8
1. Mastery	-							
2. Performance Approach	.040	-						
3. Performance Avoidance	.176	.219**	-					
4. Positive Attitudes	.356**	.009	-.035	-				
5. Attendance	.160	-.059	-.022	.129	-			
6. Disturbing Others	-.056	.342**	.192*	-.015	-.228*	-		
7. Failing to Follow Directions	-.093	.323**	.167*	-.072	-.182	.782**	-	
8. Low Engagement	-.161*	.348**	.231**	-.131	.171	.761**	.716**	-

\*. Correlation is significant at the 0.05 level (2-tailed).

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

Moreover, students' positive attitudes were positively related to the mastery goal but were unrelated to the performance-approach and performance-avoidance goals. Surprisingly, students' attendance was not related to any of the three achievement goals. The three self-reported disruptive behaviors (disturbing others, failing to follow directions, and low engagement or irresponsibility subcategories) were positively correlated with one another. They were all positively related to the performance-approach and performance-avoidance goals. Only low engagement was negatively related to the mastery goal.

*Hierarchical multiple regression analyses.* As reported in Table 5, for students' positive attitudes toward the after-school physical activity program, only the mastery goal ( $p < .001$ ) emerged as the significant positive predictor and explained 12.7% of the variance. For students' attendance, none of the three achievement goals emerged as a significant predictor (see Table 6). For self-reported disturbing others, only the performance-approach goal emerged as the positive significant predictor and explained 11.7% of the variance. For self-reported failing to follow directions, only the performance-approach goal ( $p < .001$ ) emerged as the positive significant predictor and accounted for 10% of variance. Finally, for self-reported low engagement or irresponsibility, both the performance-approach and performance-avoidance goals became positive significant predictors that explained 14.6% of variance, whereas the mastery goal ( $p < .05$ ) was the only negative predictor and explained 4.2% of variance (see Table 7).

Table 5

*Results of Hierarchical Multiple Regression on Students' Positive Attitudes*

Variable	R <sup>2</sup>	R <sup>2</sup> Cha	B	B
Step 1				
MG	.127	.127	.306	.356**
Step 2				
MG			.306	.356**
PAPG	.127	.000	-.003	-.005
Step 3				
MG			.323	.377**
PAPG			.010	.041
PAVG	.137	.010	-.073	-.179

*Note.* MG = mastery goal; PAPG = performance-approach goal; PAVG = performance-avoidance goal; R<sup>2</sup> values are cumulative, with each incremental step adding to the variance explained; \* $p < .05$ ; \*\*  $p < .001$ .



Table 6

*Results of Hierarchical Multiple Regression on Students' Attendance*

Variable	R <sup>2</sup>	R <sup>2</sup> Cha	B	B
Step 1				
MG	.026	.026	4.826	.160
Step 2				
MG			4.943	.164
PAPG	.030	.005	-1.384	-.068
Step 3				
MG			5.266	.174
PAPG			-1.188	-.058
PAVG	.032	.002	-1.253	-.049

*Note.* MG = mastery goal; PAPG = performance-approach goal; PAVG = performance-avoidance goal; R<sup>2</sup> values are cumulative, with each incremental step adding to the variance explained; \* $p < .05$ ; \*\*  $p < .001$ .

Table 7

*Results of Hierarchical Multiple Regressions on Students' Self-Reported Disruptive Behaviors*

Variable	R <sup>2</sup>	R <sup>2</sup> Cha	B	B
<b>Disturbing Others</b>				
Step 1				
PApG	.117	.117	.335	.342**
Step 2				
PApG			.308	.315**
PAvG	.131	.014	.143	.123
Step 3				
PApG			.308	.315**
PAvG			.162	.140
MG	.140	.008	-.134	-.093
<b>Failing to Follow Directions</b>				
Step 1				
PApG	.104	.104	.354	.323**
Step 2				
PApG			.329	.301**
PAvG	.114	.010	.131	.101
Step 3				

Table 7 (continued).

Variable	R <sup>2</sup>	R <sup>2</sup> Cha	B	B
PApG			.329	.301**
PAvG			.160	.124
MG	.130	.015	-.203	-.126
Low Engagement or Irresponsibility				
Step 1				
PApG	.121	.121	.350	.348**
Step 2				
PApG			.314	.312**
PAvG	.146	.025	.194	.163*
Step 3				
PApG			.315	.312**
PAvG			.238	.199*
MG	.188	.042	-.309	-.209*

*Note.* MG = mastery goal; PApG = performance-approach goal; PAvG = performance-avoidance goal; R<sup>2</sup> values are cumulative, with each incremental step adding to the variance explained; \* $p < .05$ ; \*\*  $p < .001$ .

*Observed disruptive behaviors.* A total of 637 disruptive behaviors across the three lessons were observed and recorded for all nine students. As shown in Figure 4 on p. 69, the highest frequency and percentage was found for failing to follow directions (370; 58.08%), followed by disturbing others (244; 38.30%) and low engagement or irresponsibility (23; 3.62%). The further examination of the data revealed the frequencies of the disruptive behaviors differed by achievement goals (see Table 8 on p. 70). Specifically, students high in mastery goals displayed 80 (12.55%) disruptive behaviors; students high in performance-approach goals displayed 338 (53.07%) disruptive behaviors, and students high in performance-avoidance goals displayed 219 (34.38%) disruptive behaviors. Below is the breakdown of the three observed disruptive behaviors by achievement goals.

*Disturbing others.* The behavior of disturbing others consisted of four sub-behaviors: talking, hyperactive, pushing, and making fun. There were 244 disturbing others behaviors. Students high in performance-approach goals engaged more often in this type of disruptive behaviors than students high in performance-avoidance and mastery goals. More specifically, students high in performance-approach goals engaged in 79 talking behaviors, 37 hyperactive behaviors, 18 pushing behaviors, and 6 making fun behaviors. Students high in performance-avoidance goals engaged in 33 talking behaviors, 32 hyperactive behaviors, 12 pushing behaviors, and 1 making fun behavior. Lastly, students high in mastery goals engaged in 12 talking behaviors, 6 hyperactive behaviors, 7 pushing behaviors, and 1 making fun behavior.

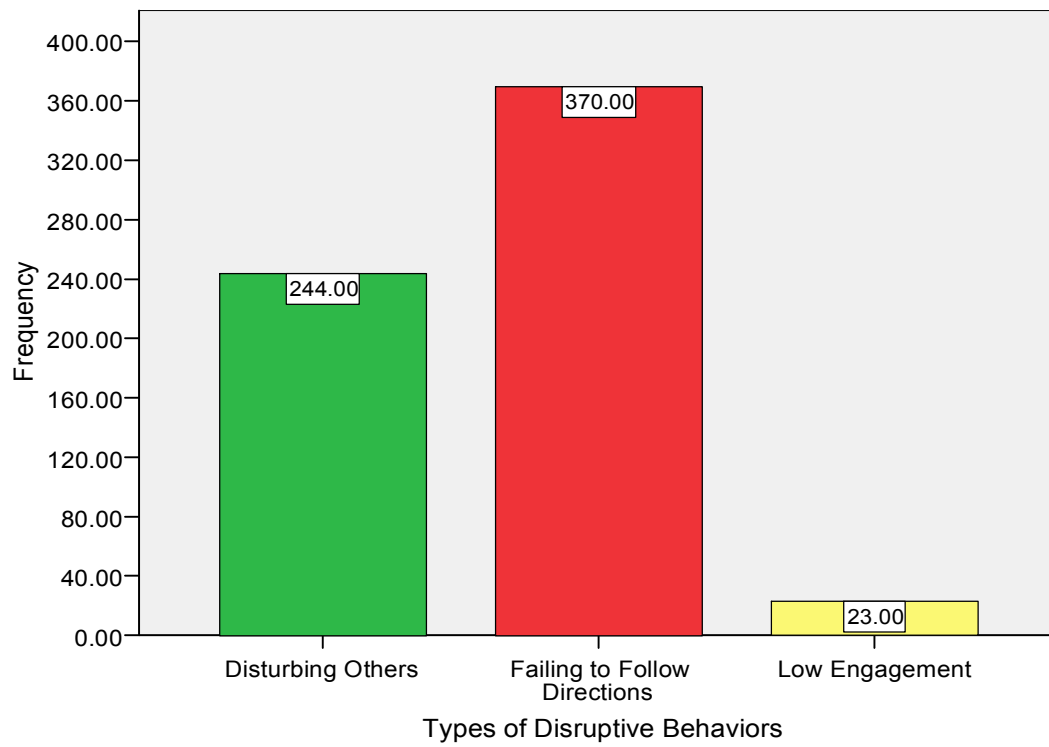
*Failing to follow directions.* The behavior of failing to follow directions consisted of four sub-behaviors: not following directions, not paying attention, not lining up right, and not taking care of equipment. There were 370 failing to follow directions behaviors. Similar to disturbing others, students high in performance-approach goals engaged more often in failing to follow directions behaviors than students high in performance-avoidance and mastery goals. More specifically, students high in performance-approach goals engaged in 98 not following directions behaviors, 39 not paying attention behaviors, and 38 doesn't line up right behaviors. The corresponding numbers for students high in performance-avoidance and mastery goals were 70 and 29 for not following directions behaviors, 31 and 11 for not paying attention behaviors, and 25 and 11 for not lining up right behaviors. Finally, 10 and 7 not taking care of equipment behaviors were observed among students high in performance-approach and performance-avoidance goals, respectively.

*Low engagement and/or irresponsibility.* The behavior of low engagement and/or irresponsibility also consisted of four sub-behaviors: moving slowly on purpose, leaving group during activity, being timed out, and not participating. There were 23 low engagement and/or irresponsibility behaviors observed. Specifically, students high in performance-approach and performance-avoidance goals both engaged in 4 moving slowly on purpose behaviors whereas students high in mastery goals did not engage in this behavior at all. Students high in performance-avoidance goals engaged in 4 leaving group during activity behaviors, while students high in performance-approach and mastery goals engage in none of them. Students high in performance-approach goals had

9 occurrences of being timed out whereas their counterpart peers were not timed out. Finally, only 2 not participating behaviors were observed among the three students high in mastery goals.

*Association between achievement goals and observed disruptive behaviors.* A chi-square analysis was conducted to test whether students' observed disruptive behaviors differed as a function of their achievement goals. Because of the low frequencies that occurred in the low engagement or irresponsibility behavior, this behavior was excluded from the chi-square analysis. As a result, the chi-square analysis focused on the association between three achievement goals (mastery, performance-approach, and performance-avoidance) and two disruptive behaviors (disturbing others, failing to follow directions). The results revealed no significant association between achievement goals and observed disruptive behaviors [ $\chi^2(2) = 3.52, p = .176$ ].

*Similarities and differences between the observation and self-report data.* As indicated in Table 9, one difference emerged between the observation and self-report data. For the nine students as a whole, the self-report data revealed that disturbing others had the highest mean ratings, while the observation data indicated failing to follow directions was the most observed disruptive behavior among those students. However, when the students' achievement goals were considered, both data sets revealed a similar trend. As shown in Figures 5 and 6, students high in the mastery goal reported or engaged in disruptive behaviors less often than did students high in the performance-approach and performance-avoidance goals.



*Figure 4.* Frequency of observed disruptive behaviors for all nine students.

Table 8

*Frequencies and Percentages of Observed Disruptive Behaviors by Achievement Goals*

	Total Frequency	Mastery Goals	Performance- approach Goals	Performance- avoidance Goals
<u>Disturbing Others</u>				
Talking	124 (50.82%)	12 (46.16%)	79 (56.43%)	33 (42.31%)
Hyperactive	75 (30.74%)	6 (23.07%)	37 (26.43%)	32 (41.03%)
Making fun	8 (3.28%)	1 (3.85%)	6 (4.28%)	1 (1.28%)
Pushing	37 (15.16%)	7 (26.92%)	18 (12.86%)	12 (15.38%)
Total	244	26	140	78
<u>Failing to Follow Directions</u>				
Doesn't pay attention	82 (22.16%)	12 (23.08%)	39 (21.08%)	31 (23.31%)
Not following directions	197 (53.24%)	29 (55.77%)	98 (52.97%)	70 (52.63%)
Doesn't take care of equipment	17 (4.60%)	-	10 (5.41%)	7 (5.26%)
Doesn't line-up right	74 (20%)	11 (21.15%)	38 (20.54%)	25 (18.80%)
Total	370	52	185	133



Table 8 (continued).

	Total Frequency	Mastery Goals	Performance- approach Goals	Performance- avoidance Goals
<u>Low Engagement or Irresponsibility</u>				
Move slowly on purpose	8 (34.77%)	-	4 (30.77%)	4 (50%)
Doesn't participate	2 (8.70%)	2 (100%)	-	-
Leaving group during the activity	4 (17.40%)	-	-	4 (50%)
Being timed out	9 (39.13%)	-	9 (69.23%)	-
Total	23	2	13	8

Table 9

*Similarities and Differences Between the Observed and Self-Reported Data of Disruptive Behaviors for All Nine Students*

	Observed Data		Self-Reported Data	
	Frequency	Percentage	<i>M</i>	<i>SD</i>
Disturbing Others	244	38.30	3.04	1.13
Failing to Follow Directions	370	58.08	2.84	1.26
Low Engagement	23	3.62	2.69	1.26

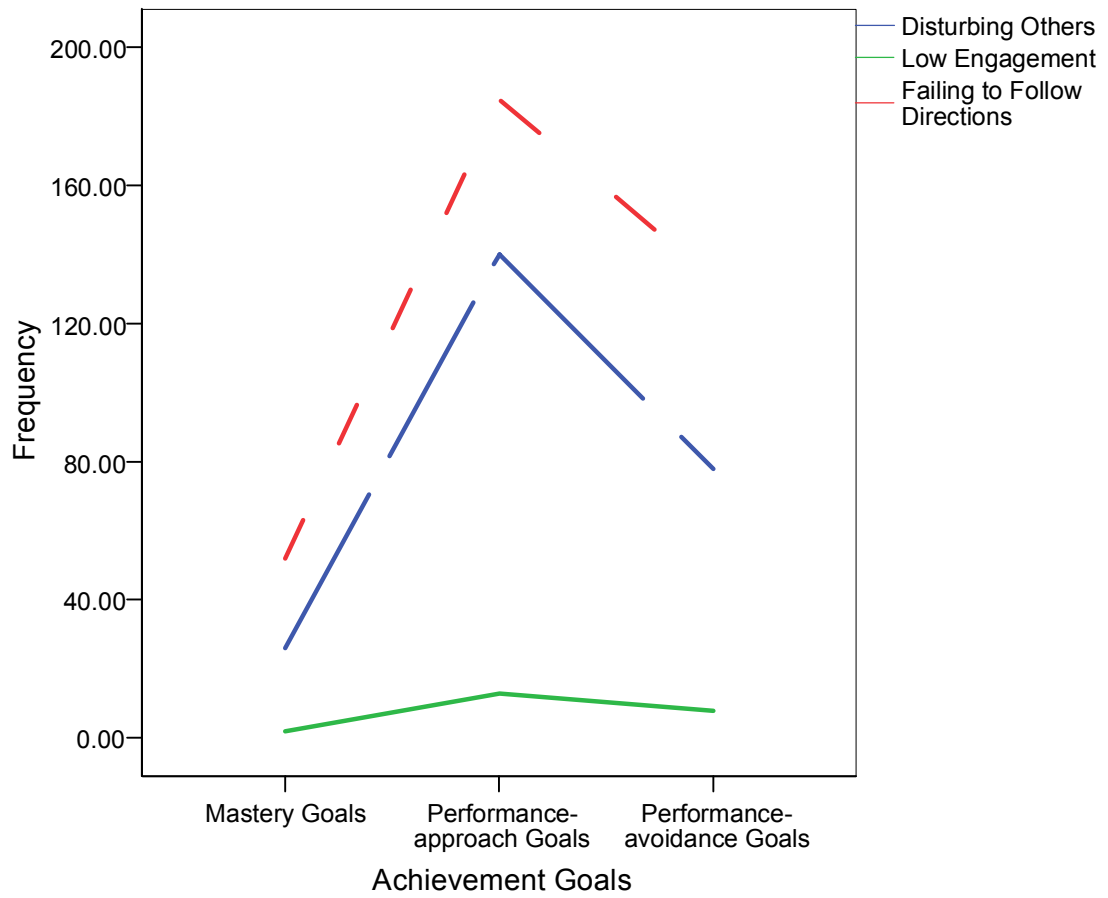
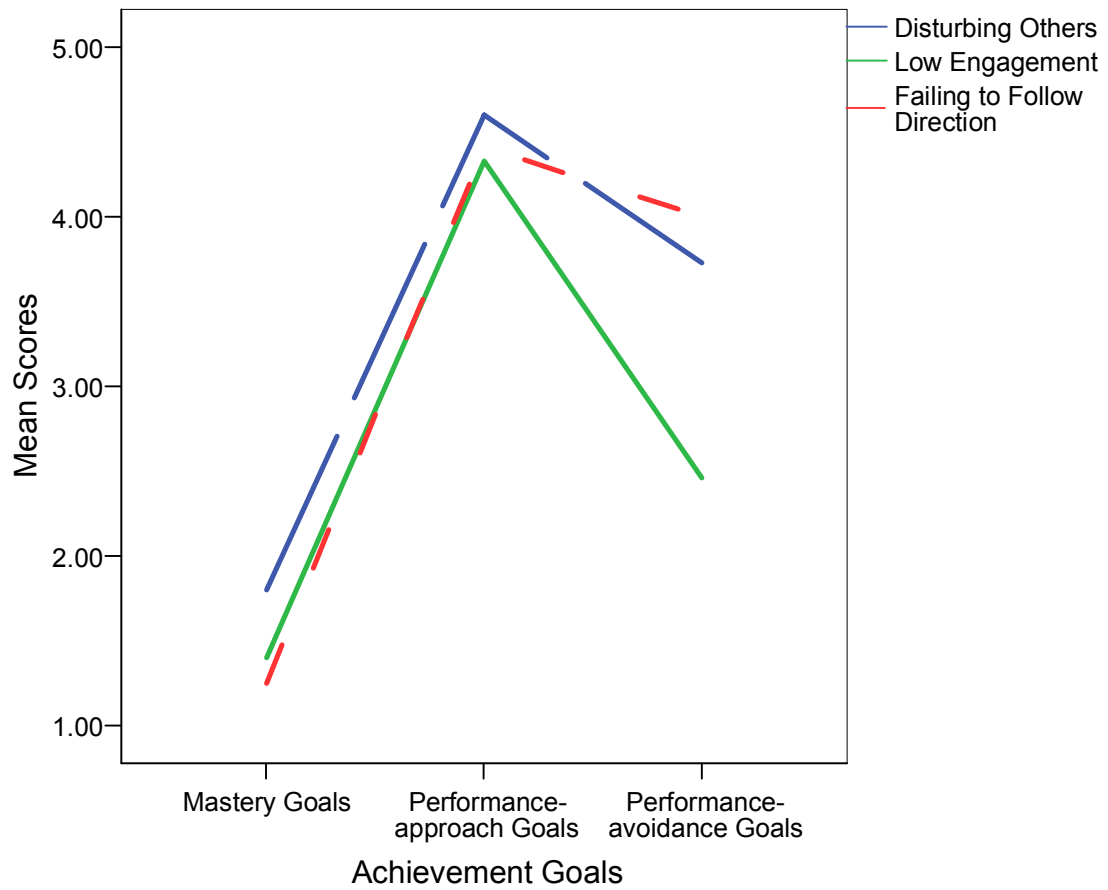


Figure 5. Trends of observed disruptive behaviors by achievement goals.



*Figure 6.* Trends of self-reported disruptive behaviors by achievement goals.

## *Section II: Qualitative Analysis*

The interview data tapped students' attitudes regarding their likes and dislikes in the after-school physical education classes. They were transcribed, coded, and analyzed. The resulting findings below are reported in relation to the questions with which students were interviewed.

*Question 1: How did you feel about this after-school program?* Of the 20 students interviewed, 18 children felt good about the after-school physical activity program. The other two students, however, had mixed feelings. Both of them liked the after-school physical activity program but did not like teachers. For example, Kim complained about teachers, not only in the after-school physical activity classes but also in math, science, reading, and enrichment classes. She stated, "They are mean! Because they are yelling too much! I know they want us to be quiet. Teachers need to ask kids to sit against the wall instead of yelling, so kids will listen to them." Mary, on the other hand, explained that she did not like the teachers because she had an argument with them.

Thirty-two responses were generated by the students. Their positive perceptions of the program fell into four categories: (1) having fun, (2) physical benefits, (3) playing with friends, and (4) doing something after school.

(1) *Having fun.* Students responding in this category (15 responses) felt that the after-school physical activity program was fun. For example, April commented, "I like physical activity classes because I have fun and play different games that I can't do in other classes like in reading, science, or math. And we play things that I like to play like

kickball and volleyball.” Beste provided another response, “It is fun because I learn new games and play them.” Tom stated, “It is exciting to do things you want to do and what CCLC teachers do. And, you know, it is fun to play different games.” Lastly, Esra stated, “It is fun, you know, because we can do anything we want to do like jumping ropes and shooting hoops.”

(2) *Physical benefits.* Students whose responses fell in this category (eight responses) indicated the after-school physical activity program offered them opportunities to reduce weight, keep their body in shape, and make them strong. Typical responses included:

I feel good about it. I like to be in physical activity class because it helps me exercise my body, gives energy to my body, and shapes my body. (Fatima)

I feel good about the after-school physical activity program. I come to the after-school program and I am a part of everything to lose some weight because I am pretty fat. (Tim)

I think physical activity classes are great. We needed it because some of the kids are bony and they think health isn’t important. That’s why some kids die. It makes kids strong and not be bony but eat healthy. (Ray)

(3) *Playing with friends.* Students responding in this category (five responses) indicated that students liked the after-school physical activity program because they could play with their friends. For example, Scott stated, “I feel good about the after-school physical activity program because I get to play with my friends.” Bob, Mariam, and Robert agreed that they liked the program because they could play and have fun with

their friends. Finally, Sera said, “I met with my best friend here and I could run and have fun together.”

(4) *Doing something after school.* Students whose responses fell in this category (four responses) felt the after-school physical activity program provided them opportunities to do something after school. For example, Bill said, “I like it because I do not have to go home and just watch TV.” Similarly, Zeynep commented, “The after-school physical activity program is great because it keeps me off the street and keeps me away from TV.” Finally, Scott stated, “This program is really good because I am coming here and playing instead of just sitting at home and doing nothing.”

*Question 2: What did you like the most about this after-school physical activity program? Why?* Twenty-one responses were generated by students responding to this question. Except one response made by Jacortny, who said, “I like my physical activity teachers most because they are very good teachers,” all other responses centered around two categories: (1) basketball and (2) a variety of games.

(1) *Basketball.* Ten responses indicated what students liked the after-school physical activity program most was to get to play basketball. Typical comments in this category included:

I like basketball most because it is my favorite sport. (Fatima)

I like basketball most because I get to shoot and score baskets. (Beste)

I like basketball most because I have so much fun playing it. (Tom)

I like basketball most because I can run a lot while playing basketball. (Bill)

(2) *A variety of games.* Students in this category generated ten responses and

named a variety of games they played in the after-school physical activity program. For example, Beste stated that she liked the Crowns and Cranes game because she could run and got an opportunity to improve her strength. Kim shared a similar view as Beste, saying, “I like to play foxtail, kickball, and race because I really like to be energized and I move around a lot!” Rhonda, on the other hand, liked free time most and explained, “because you can do anything you want like playing different games.”

*Question 3: What did you like the least about this after-school physical activity program? Why?* Of the 20 students interviewed, 11 students indicated there was nothing that they disliked about the after-school physical activity program. Nine students, however, named several things that they liked least about the program. They made 12 responses together and three categories emerged as a result. They included: (1) dislike of some games, (2) dislike of the fitnessgram test, and (3) dislike of waiting.

(1) *Dislike of some games.* Six responses in this category revealed that students did not like some games at all, such as foxtail and Simon says. For example, Bill said, “I didn’t like foxtail because a whole bunch of people try to grab your flag and someone always ends up fighting. They fight because one grabs another’s flag and gets mad. I prefer basketball, kickball, football, and just like games you can pass the ball and stuff.” Jacob stated, “I didn’t like Simon says because all we do is go up and down, it is boring.” Finally, four girls expressed that they liked football the least among the activities offered in the after-school physical activity program. Some of their responses included, “I don’t like very much football because that is a boy game. I prefer basketball, foxtail, and jump rope” (Jenny), “I don’t like football because I’m a girl and I got sweaty



when I was playing it” (Sera), and “I like football the least because I can get a bruise if someone throws the ball hard” (April).

(2) *Dislike of the fitnessgram test.* Students responding in this category (three responses) indicated what they liked the least about the after-school physical activity program was the fitnessgram test they had to take. For example, Zeynep said, “I did not like the test (i.e., fitnessgram) because it made me ache. I had a shoulder sore and my knee hurt. I do not want to take the test again.” Mary simply stated, “I don’t like to run when I have to run.”

(3) *Dislike of waiting.* Students whose responses fell in this category (three responses) did not like waiting in the lines at the beginning of each class. For example, Kim stated, “I hate to wait because I want to play.” Mary also commented, “I do not like waiting in line because I am ready to play.” Finally, Bill noted, “I want to play basketball, kickball, and football. Playing basketball and other things can get everyone in shape and you don’t want to sit around being lazy.”

*Question 4: Could you tell me two or three good things that happened to you because you participated in this after-school physical activity program? Why?* Of the 20 students interviewed, all of them agreed that the after-school physical activity program had positive impacts on them and made 29 responses accordingly. Five categories emerged from these responses and included: (1) increased practice and exercise, (2) learning, (3) physical improvement, (4) having fun, and (5) friendship.

(1) *Increased practice and exercise.* Students in this category generated eleven responses. They expressed that they had increased practice and exercise because of

attending the after-school physical activity program. Typical responses in this category included:

After school at home, I would sit around, watch TV, play video games, fall asleep, and you know, I would be bored. And it is hard for me to get up in the morning early and practice basketball. I'm not bored any more because I get to practice more basketball in the after-school program. (Scott)

Coming here and exercising is better than watching TV because there is not much thinking going on while watching TV. So your brain doesn't go to mush. (Jacob)

The best thing about it is I don't have to go home because my little brother causes a lot of trouble and blames me. I can come up here, work out, and do a lot of exercise. (Tim)

I am practicing all types of games and sports and it will help you when you are in a real game. (Jenny)

(2) *Learning*. Students responding in this category (six responses) recognized learning as a good thing that happened to them, whether it was learning new games or learning how to help people when they got hurt. For example, Rhonda said, "You can learn new games you do not know and get better. Someone can help you to be athlete if you like." Bob commented, "I get better at games that I play because I learn new things and I play a lot!" Finally, Zeynep commended, "My grades are up because I can come up here, relax, and then concentrate on my other classes."

(3) *Physical improvement*. Students' whose responses fell in this category (five responses) realized that the after-school physical activity program improved their physical health and appearances. For example, Fatima said, "I got my body shape back." Bill commented, "I am more fit now." Finally, Mariam stated, "I feel stronger and healthier than I felt before attending after-school physical activity program."

(4) *Having fun*. Five responses in this category indicated having fun was one of the good things that had happened to students due to their participation in the after-school physical activity program. For example, Tom said, "After-school physical activity program is great because it is fun for me and all of my friends. Playing basketball, football, and jump ropes are all fun." Other responses in this category were:

"In after-school physical activity classes, everybody is happy. I am happy, my friends are happy because, you know, it is fun." (Pat)

"I have fun in physical activity classes because I can play with my friends."  
(Robert)

"I like jogging around and have fun." (Beste)

"Instead of going home, I come up here, do a lot of things and have fun." (Tim).

(5) *Friendship*. Two responses focused on friendship as a good thing that happened to students because of participation in the after-school physical activity program. Robert, for example, said, "I can play and share everything with my friends in the program." Sera commented, "I felt good about the after-school program when Mr. David (one of the physical activity teachers) said he was my friend because I never had a friend before."

*Question 5: If you were the teacher, what would you like to do differently? Why?*

When responding to this question, all 20 students indicated they would do something new or different if they were in charge of the program. Four categories emerged from 22 responses generated by these students. They included games that are more traditional and sports, more running, more new games and sports, and more outdoor activities.

(1) *More traditional games and sports.* Students responding in this category (eight responses) stated that they would put more traditional sports and games such as basketball, football, and kickball in the after-school physical activity program if they were the teachers. Typical responses included:

I would do football because I like it and not all girls like football. I'd like to teach basketball for girls only because girls don't like football and because it is the easiest sport out of all the sports. (Tom)

I would put more basketball, soccer and baseball games and I would involve myself more in the children's games. (Beste)

I would put more volleyball because when you want to be in a high school volleyball team, you need to learn more in elementary school. (April)

I would let children have fun by playing flag football and all of the other sports. (Robert)

(2) *More running.* Six of 22 responses comprised this category. Students in this category expressed that they would incorporate more running into the program if they were the teachers. For example, Fatima said, "I would make kids run around the gym at least two laps because running makes children healthy." Bill commented, "I would put

more running at the beginning of the class, so children don't catch cramps and get sick. If you look at athletes who don't stretch, they will get cramps or hurt themselves most likely." Finally, Rhonda stated, "Let them exercise by running around the gym a couple times."

(3) *More new games and sports.* Students in this category generated five responses. For example, Bob said, "I would try to invent new games." Jenny stated, "I would put more exercise and fun games because everybody will participate." Mary would put some dance classes in. Finally, Susan commended, "You know, you do not want to do the same thing over and over."

(4) *More outdoor activities.* Three responses called for doing more activities outside of the gym. For example, Kim said, "I would do more outside activities because we sit inside a lot of time. Outside is good for physical activities because it is more fun!" Two other students commented:

I would let everybody go outside everyday because when the door isn't open, the inside of the gym gets really hot and, you know, children can get hurt in the gym because of the walls inside. If you throw a ball against the wall, the ball will hit somebody. Outside, this will not happen because you get a wide space and nobody gets hurt as bad as in the gym. (Scott)

If I had three tutors, I would make three groups of students. The first group would be outside of the gym and one tutor watch the outside kids. The second group would be inside and they would play volleyball. And the last group would do their homework. I would do this because kids could get activity instead of just

playing around the gym and because they could hurt someone while playing in the gym. (Tim)

### Discussion

This study utilized the trichotomous achievement goal model to examine achievement goals and related motivational responses among children in an after-school physical activity program. One hundred fifty-eight students participated in this study. The purposes of this study were to examine the reliability and validity of the scores generated by the trichotomous achievement goal model, to identify achievement goals endorsed by students, to determine students' attitudes toward the program, to identify students' disruptive behaviors, and to investigate the relationships among students' achievement goals, attitudes, attendance, and disruptive behaviors.

#### *Reliability and Validity of the Trichotomous Achievement Goal Model*

Results of this study revealed the trichotomous achievement goal model fit the data well and demonstrated satisfactory psychometric properties. For example, all three achievement goal scores had Cronbach alpha coefficients greater than .70 (Cronbach, 1951; Nunnally & Bernstein, 1994), indicating that they were reliable. Furthermore, all the fit indexes ( $\chi^2/df$ , CFI, NNFI, and RMSEA) in the model, after some modifications, were in the excellent range, suggesting that the trichotomous achievement goal model produced valid scores. In short, the reliability and validity of the scores produced by the trichotomous model were satisfactory with this sample of at-risk elementary school students in the context of after-school physical activity program.

The finding that the mastery goal, the performance-approach goal, and the

performance-avoidance goal emerged as three distinct constructs in the confirmatory factor analyses provides the first empirical evidence that the trichotomous achievement goal model observed in the academic and university settings (Elliot & Church, 1997) also existed among at-risk elementary school students in an after-school physical activity program. This finding suggests that the trichotomous model might become a viable theoretical model to examine at-risk students' achievement motivation in after-school physical activity programs.

#### *Achievement Goals Endorsed by the Students*

As described earlier, the trichotomous model developed by Elliot (1999) posits three types of achievement goals: mastery (defined as the development of competence and mastering tasks), performance-approach (defined as the attainment of favorable judgments of competence), and performance-avoidance (defined as the avoidance of unfavorable judgments of competence). Examination of the mean scores of these three goals revealed they were all above the midpoint of the scale (i.e., 3), suggesting that students in this study endorsed the mastery, performance-approach and performance-avoidance goals (see Table 3). The results of ANOVA with repeated measures further revealed that students scored significantly higher on the mastery goal than on the performance-approach and performance-avoidance goals, indicating that they endorsed the mastery goal more than the two performance goals. In previous research on the dichotomous and trichotomous achievement goal models (e.g., Duda, 1989; Elliot & Church, 1997; Kaplan et al., 2002; Maehr, 1983; McGregor & Elliot, 2002; Shih, 2005; Smith, Duda, Allen, & Hall, 2002; Xiang & Lee, 2002; Xiang et al., 2004), students

were also found to report higher scores on mastery goals than performance goals. In their study examining fourth graders' achievement goals and perceived motivational climate in a running program, Xiang et al. (2004), for example, observed that fourth graders endorsed the mastery goals more than the performance goals (i.e., performance-approach) in the dichotomous model. Similarly, Shih (2005) also observed that sixth graders endorsed the mastery goals more than the performance-approach and performance-avoidance goals in the trichotomous model.

The finding that students in this study tended to endorse mastery goals more than performance goals may related to their conception of ability. Nicholls (1989) construed conception of ability as an understanding of the distinction between ability and effort and argued that there are at least two different conceptions of ability that are employed by individuals in achievement settings. Individuals with an undifferentiated conception of ability cannot distinguish effort from ability, believing that increased effort can lead to improved ability. Consequently, they are likely to endorse mastery goals. Individuals with a differentiated conception of ability, on the other hand, understand the distinction between ability and effort and therefore have the notion of ability as a stable capacity. As a result, they tend to endorse performance goals. Developmental research on children's conceptions of ability indicates many elementary school children hold an undifferentiated conception of ability (Nicholls, 1989; Lee, Carter, & Xiang, 1995; Xiang & Lee, 1998). For example, in their study on physical education students in grades 4, 8, and 11, Xiang and Lee (1998) observed that approximately 60% of the fourth graders had an undifferentiated conception of ability. They also found that



students with an undifferentiated conception of ability were more likely to be mastery goal oriented than students with a differentiated conception of ability. Students in this study were third-, fourth-, fifth-, and sixth-graders. Therefore, it is likely that many of them held an undifferentiated conception of ability, which could lead them to endorse the mastery goal more than the performance-approach and performance-avoidance goals.

Surprisingly, students in this study, as a whole, also endorsed the performance-avoidance goal more than the performance-approach goal. The performance-avoidance goal reflects a concern with not appearing incompetent or less competent than others appear. Given that this is the first study to document such a phenomenon among at-risk elementary school students in an after-school physical activity program, it would be difficult to provide definitive explanations. Nevertheless, research evidence suggests that students with low academic achievement tend to endorse performance-avoidance goals (Urden, 2004). Therefore, this group of students was expected to endorse the performance-avoidance goal, whether they were in academic classrooms or in the after-school physical activity program. This is because performing poorly is an inherent characteristic of performance-avoidance goals (Urden, 2004; Urden & Midgley, 2001).

As noted earlier, students in this study were from a school district serving mostly at-risk African-American and Hispanic-American students. According to the Texas Education Agency (TEA), this school district was rated as academically acceptable in 2006 but at the same time the elementary school that participants of this study attended was rated as academically unacceptable, indicating that students of this school as a whole were low performing students (TEA, 2006). Therefore, this group of students was

expected to endorse the performance-avoidance goal, whether they were in academic classrooms or in the after-school physical activity program. The TEA is a state office that annually rates schools and districts from the top rating of "academically exemplary" to the lowest rating of "academically unacceptable" based on students' performance on the Texas Assessment of Knowledge and Skills (TAKS) in math, English, science, reading, and social science.

### *Students' Attitudes*

Both the questionnaire and interview data indicated students in this study had positive attitudes toward their after-school physical activity program. This result is consistent with previous physical education research (Aicenena, 1991, Carlson, 1995; Luke & Cope, 1994; Ratliffe et al., 1994; Ryan et al., 2003) that elementary and secondary school students' attitudes toward physical education were generally positive.

The interview data further revealed that students had positive attitudes primarily because they had fun, they played a variety of games, and they benefited physically from participation in physical activities. These factors were also observed contributing to students' positive attitudes toward physical education in other studies. For example, Solmon and Carter (1995) reported that elementary school students in their study perceived physical education as fun and it made them feel good and special. They cited a variety of activities, exercises, and teachers as reasons for their like of physical education. Similarly, in their elementary school study, Flohr and Toms (1997) found that many students liked everything about physical education classes because they had fun and played a variety of games including basketball.

It is important to note that many students in this study, particularly boys, indicated they liked the program because they had plenty of opportunity to play basketball. Probably this is because basketball is a culturally dominant sport for African-Americans (Chen, 1998; McCaughtry, Martin, Hodges-Kulinna, & Cothran, 2006; McNutt, 2002) and basketball is particularly attractive activity for at-risk African-Americans due to the reasonably low cost of equipments (balls and hoops), unlimited facilities (anywhere outside), and rapid reward game structure (scoring) (McNutt, 2002). This finding suggests basketball could become an important activity to enhance positive attitudes among at-risk African-American students in after-school physical activity programs.

#### *Disruptive Behaviors*

Consistent with previous research (Kulinna et al., 2003; Kulinna et al., 2006), three disruptive behaviors (disturbing others, failing to follow directions, and low engagement or irresponsibility) were also observed among this group of students in their after-school physical activity classes. The confirmatory factor analyses revealed they were three distinct constructs. However, the extent to which students displayed those behaviors was not great as the mean scores of those behaviors were all around the midpoint of the scales. Probably this was because students in this study, as reported earlier, had positive attitudes toward their after-school physical activity program. Research has demonstrated that students' positive attitudes toward physical education increase their enhancing interest and engagement behaviors both in physical education classes and in physical activity outside of school (Erpic, Skof, Boben, & Zabukovec,

2005; Ferguson, Yesalis, Pomrehn, & Kirkpatrick, 1989; Prochaska et al., 2003).

Therefore, it seems reasonable to suggest that promoting positive attitudes among students could decrease their disruptive behaviors.

In addition to self-reports of disruptive behaviors, observations were conducted among nine select students. Observation data have greater external or ecological validity than self-reports because they provide a direct measure of the behavior as it is actually occurring in the classroom (Nock & Kurtz, 2005). Examination of the observation data indicated failing to follow directions was the most frequently coded disruptive behavior, while low engagement or irresponsibility was the least frequently coded disruptive behavior. Failing to follow directions has negative consequences. More specifically, when students have difficulty focusing on following directions and staying on task, they not only fail to achieve up to their own potential but also hinder the learning of other students and reduce the overall effectiveness of schools and teachers (Kulinna et al., 2003; Supaporn et al., 2003). Therefore, following directions is considered essential to students' success in learning (Warkentin & Bates, 1994).

Research indicates that lack of clear managerial and instructional task system causes students not to follow directions in the classroom (Matheson, Moon, & Winiecki, 2000; Supaporn et al., 2003). This is because students feel free to behave according to their own expectations, not their teachers' expectations. Given that failing to follow directions was the most frequently coded disruptive behavior in this study, it is important that teachers of after-school physical activity programs be aware of this finding and identify strategies that help students listen and follow directions, which in turn could

enhance their engagement in physical activities offered by the programs.

Analysis of both the self-report data and the observation data for these nine students revealed one difference. That is, disturbing others was the most self-reported disruptive behavior, while failing to follow directions was the most frequently observed disruptive behavior. This discrepancy should not be surprising in light of other research findings that students' self-reports do not necessarily match their actual behavior (Freeman & Anderman, 2005; Patrick, Anderman, Ryan, Edelin, & Midgley, 2001; Turner & Meyer, 2000; Turner et al., 2002; Xiang et al., 2003). The discrepancy also highlights the importance of going beyond self-report data in the examination of students' behaviors in physical activity settings. Doing so enables researchers to gain a more complete picture in this area of inquiry.

#### *Relationships Among Achievement Goals, Attitudes, and Disruptive Behaviors*

Correlation analyses revealed among the three achievement goals (mastery, performance-approach, and performance-avoidance), only the mastery goal was related positively and significantly to students' positive attitudes toward their after-school physical activity program. This positive and significant association was further confirmed in the subsequent hierarchical regression analysis. Therefore, results from both analyses confirm that students whose goals were to learn, to master learning tasks, and to improve skills were more likely to display positive attitudes than students who did not endorse these goals. This finding is consistent with previous research that mastery goals were positively related to students' attitudes toward school or physical education (Meece et al., 1988; Newton, Watson, Kim, & Beacham, 2006). It suggests such a link

also existed in the context of after-school physical activity program. Therefore, promoting mastery goals in after-school physical activity programs could foster students' positive attitudes.

As a behavioral indicator of students' attitudes, their attendance in the program was also examined in relation to the three achievement goals. Results of both correlation and hierarchical multiple regression analyses revealed none of the three achievement goals was positively or negatively significantly related to students' attendance. This result is unexpected as students with mastery goals are expected to place higher value on learning and work harder than students with performance goals. But it is consistent with the study by Vickers and her colleagues (2004), who examined whether motivational variables such as value of schooling, motivation to complete school, a mastery goal orientation, and general academic self-concept would predict literacy, numeracy, and attendance among Australian high school students. They found that a mastery goal orientation failed to emerge as a significant predictor of student attendance. Taken together, these findings seem to suggest that a positive relationship cannot be established between mastery goals and students' attendance.

In response to the view that achievement goal theory could become a new theoretical perspective to the study of students' disruptive behaviors (Kaplan & Maehr, 1999), the current study examined elementary school students' achievement goals and their relations to disruptive behaviors in an after-school physical activity program. Results of both correlation analyses and hierarchical multiple regression analyses revealed the performance-approach goal was positively and significantly related to all

three of the students' self-reported disruptive behaviors (disturbing others, failing to follow directions, low engagement or irresponsibility), suggesting that students holding the goal of outperforming others were more likely to display disruptive behaviors in a physical activity setting. This finding is consistent with the Kaplan and Maehr study (1999) that performance-approach goals were found to be positively related to self-reported disruptive behaviors among sixth grade African-American students. Considered collectively, these findings appear to suggest that performance-approach goals are related to disruptive behavior among at-risk students in both academic and after-school physical activity settings.

As expected, the performance-avoidance goal emerged as a positive predictor of students' self-reported low engagement or irresponsibility. This result is in line with classroom research findings that performance-avoidance goals were positively related to students' self-handicapping behavior such as deliberately not trying in school (Midgley & Urdan, 2001). Both low engagement and self-handicapping represent avoidance behaviors and thus they are presumed to be associated with performance-avoidance goals. A positive link found in this study between the performance-avoidance goal and self-reported low engagement among at-risk elementary school students in an after-school physical activity program provides another empirical support for the notion that performance-avoidance goals are maladaptive (Elliot, 1999; Midgley & Urdan, 2001).

In contrast to the performance-avoidance goal, the mastery goal was a negative predictor of students' self-reported low engagement. This means that students who endorsed the mastery goal were less likely to demonstrate non-participation behaviors

than students who did not endorse this goal. This finding suggests that mastery goals may lead to decreased level of low engagement among students.

While the above findings indicate the three achievement goals were related to students' self-reported disruptive behaviors, there is a need to examine these achievement goals in relation to observed students' disruptive behaviors. This is because observed behaviors reflect what students actually do in the classroom and thus they have greater external or ecological validity than self-reports. Therefore, this study conducted observations of nine students who were high in either the mastery goal, or the performance-approach goal, or the performance-avoidance goal. As shown in Figure 5, there was a trend indicating that students high in the mastery goal displayed disruptive behaviors less frequently than did students high in the performance-approach goal or the performance-avoidance goal. However, results of the chi-square analysis revealed the association between the achievement goals and observed disruptive behaviors was not statistically significant, which is different from findings with self-reported disruptive behaviors.

One possible explanation for such a discrepancy might be that the nine students selected for the present study, as noted before, were each observed for three consecutive 30-min lessons only. This frequency of observation may not be adequate to catch the relationships between achievement goals and disruptive behaviors among students. Another possibility could be that the number of students observed in the study was too small. Future research efforts, therefore, are recommended to replicate this study with more lessons and a larger number of students.



### *Implications for Future Research and Practice*

As a theoretical perspective to studying student motivation in achievement settings, the trichotomous model has been applied extensively in the academic and university settings, but little is known about its utilization in physical activity settings, particularly in after-school physical activity programs. Results of this study revealed the trichotomous model also existed among at-risk elementary school students in an after-school physical activity program and the scores generated by this model were valid and reliable. These findings have an important implication for future research. That is, the trichotomous model can be used to examine students' achievement goals and related motivational beliefs and behaviors in after-school physical activity programs.

In this study, the three achievement goals (mastery, performance-approach, and performance-avoidance) predicted students' positive attitudes and disruptive behaviors differently. However, they were all examined individually. The finding that students in this study endorsed all three of the achievement goals indicates the three achievement goals might be able to combine to influence students' motivational beliefs and behaviors. Therefore, future research is recommended to explore the possible combined goal effects on these variables.

Consistent with previous research, the mastery goal emerged as a positive predictor of students' positive attitudes towards their after-school physical activity program and a negative predictor of students' low engagement in class. These findings suggest the positive motivational effects of mastery goals observed in the classroom and physical education can be translated in the context of an after-school physical activity

program with at-risk elementary school students. The findings also reinforce the view that mastery goals are beneficial to student motivation and learning in school. From this view, it would appear that promoting mastery goals among students should become a high priority in after-school physical activity programs. The instructional practices and strategies suggested in the literature to promote mastery goals include: defining success in terms of mastering the task rather than in terms of outperforming others in the class, stressing the learning process and participation, giving recognition of individual accomplishments, and evaluating students on task mastery and skill development rather than on ability (Kaplan et al., 2002; Solmon & Boone, 1993; Xiang & Lee, 2002; Xiang et al., 2001).

This study primarily focused on achievement goals and their relation to students' positive attitudes and disruptive behaviors with no consideration of gender differences. However, research guided by the dichotomous model (i.e., mastery versus performance goals) documented that male students were more likely to endorse performance goals than female students were, while female students were more likely to endorse mastery goals than male students were. Therefore, there is need for future research to determine if such gender differences can also be observed within the trichotomous model in after-school physical activity programs. This line of inquiry is important because if boys and girls differ in achievement goals, they will approach learning activities differently in after-school physical activity programs. If this is the case, then teachers must consider student gender when they attempt to promote physical activity for both boys and girls.

Participants in this study were mostly at-risk African-American students and

came from one rural school district located in south-central Texas. Therefore, findings of this study may not generalize to other after-school physical activity programs in different geographic regions or with students from more diverse backgrounds. Because of this, studies that expand the sample populations and programs are recommended.

Finally, all the measures in this study were taken at one point in time. As a result, our knowledge about how children's achievement goals, attitudes, and behaviors might change over time because of participating in this program is limited. Therefore, a longitudinal design is recommended for future research in this area of inquiry.

### CHAPTER III

### CONCLUSIONS

To promote active and healthy lifestyles, many after-school programs have implemented physical activity programs in which students are provided opportunities to participate in a variety of physical activities. The effects of such programs on students' physical activity levels, however, are largely dependent on whether students are motivated to participate and to demonstrate high levels of engagement behaviors in these programs. Therefore, it is critical for researchers and teachers to gain an understanding in this area. With such an understanding, teachers might be able to design and deliver after-school physical activity programs that can effectively promote positive motivation among students, which in turn may lead to higher levels of engagement in physical activity. As a first step towards this understanding, this study utilized the trichotomous achievement goal model to explore and describe what actually happened in terms of students' achievement goals, attitudes, and disruptive behaviors in an after-school physical activity program. From this first step, follow-up research and intervention treatment(s) can occur. Specifically, the importance of this study is summarized below.

First, this study represents the first attempt to examine the trichotomous model in an after-school physical activity program with at-risk elementary school children. Results of this study provide empirical support for the utilization of the trichotomous model in the context of after-school physical activity programs.

Second, this study is one of very few in the domain of physical activity and physical education that have attempted to apply the trichotomous model to study

students' disruptive behaviors in an after-school physical activity program. Results indicate the three achievement goals (mastery, performance-approach, and performance-avoidance) were differential predictors of students' self-reported disruptive behaviors. Therefore, this study provides first documentation that achievement goal theory (i.e., trichotomous model) can become a new and useful theoretical perspective in the examination of students' disruptive behaviors in after-school physical activity settings.

Third, this study established a positive link between mastery goals and students' positive attitudes toward the after-school physical activity program and a negative link between mastery goals and students' self-reported low engagement behavior. These two established links reinforce the view that mastery goals are motivationally beneficial to students.

Fourth, this study also established a positive link between performance-approach goals and students' self-reported disruptive behaviors of disturbing others, failing to follow directions, and low engagement, suggesting that these disruptive behaviors are likely to occur among students who endorse performance-approach goals. Therefore, it is important for teachers to understand that performance-approach goals could lead to elevated levels of disruptive behaviors in class.

Fifth, this study also represents the first attempt to use both self-report data and observation data to examine the relationship between achievement goals and disruptive behaviors in an after-school physical activity setting. Though analysis of these two types of data revealed different results, this study demonstrated the importance of going beyond self-report data in this area of inquiry.

Finally, this study utilized questionnaires, interviews, and observation for data collection. Including them all in a single study provides a more complete picture of what actually happened in terms of students' achievement goals, attitudes, and disruptive behaviors in an after-school physical activity program. As a result, the findings may help us better understand the factors that contribute to students' motivation and behavior in after-school physical activity settings.

## REFERENCES

- Aicinena, S. (1991). The teacher and student attitudes toward physical education. *The Physical Educator, 48*, 28-32.
- Ajzen, I., & Fishbein, M. (1980). *Understanding attitudes and predicting social behavior*. Englewood Cliffs, NJ: Prentice-Hall.
- Ames, C. (1984). Competitive, cooperative, and individualistic goal structures: A motivational analysis. In R. Ames & C. Ames (Eds.), *Research on motivation in education* (pp. 177-207). San Diego, CA: Academic Press.
- Ames, C. (1992). Classrooms: Goals, structures, and student motivation. *Journal of Educational Psychology, 84*, 261-267.
- 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.
- Andersen, R. E., Crespo, C. J., Bartlett, S. J., Cheskin, L. J., & Pratt, M. (1998). Relationship of physical activity and television watching with body weight and level of fatness among children. *The Journal of the American Medical Association, 279*, 938-942.

- Anderson, L., & Prawat, R. (1983). Motivation and schooling in the middle grades. *Review of Educational Research, 64*, 287-309.
- Annesi, J. J., Wescott, W. L., Faigenbaum, A. D., & Unruh, J. L. (2005). Effects of a 12-week physical activity protocol delivered by YMCA after-school counselors (youth fit for life) on fitness and self-efficacy changes in 5-12-year-old boys and girls. *Research Quarterly for Exercise and Sport, 76*, 468-476.
- Anshel, M. H., Freedson, P., Haywood, K., Hamill, J., Horvat, M., & Plowman, S. (1991). *Dictionary of the Sport and Exercise Sciences*. Champaign, IL: Human Kinetics.
- Arbuckle, J. L. (1997). *Amos users' guide version 3.6*. Chicago, IL: SmallWaters.
- Arbuckle, J. L. (2003). *Amos 5.0 update to the Amos user's guide*. Chicago, IL: SmallWaters.
- Atkinson, J. (1957). Motivational determinants of risk-taking behavior. *Psychological Review, 64*, 359-372.
- Atkinson, J. (1964). *An introduction to motivation*. Princeton, NJ: Van Nostrand.
- Belka, D. E. (1991). Lets manage to have some order. *Journal of Physical Education, Recreation and Dance, 62*, 21-23.
- Borg, M. G. (1998). Secondary school teachers' perception of pupils' undesirable behaviors. *British Journal of Educational Psychology, 68*, 67-79.
- Borg, M. G., & Falzon, J. M. (1990). Teachers' perception of primary schoolchildren's undesirable behaviors: The effects of teaching experience, pupil's age, sex and ability stream. *British Journal of Educational Psychology, 60*, 220-226.



- Browne, M. W., & Gudeck, R. (1993). Alternative ways of assessing model fit. In K. A. Bollen & J. S. Long (Eds.), *Testing structure equation models* (pp.136-162). Newbury Park, CA: Sage.
- 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.
- Byrne, B. M. (1998). *Structural equation modeling with LISREL, PRELIS, and SIMPLIS: Basic concepts, applications, and programming*. Mahwah, NJ: Erlbaum.
- Campbell, D. E. (1968). Student attitudes toward physical education. *Research Quarterly*, 39, 456-462.
- Carlson, T. B. (1994). Why students hate, tolerate, or love gym: A study of attitude formation and associated behaviors in physical education (Doctoral dissertation, University of Massachusetts, 1994). *Dissertation Abstracts International*, 55-03A, 0502.
- Carlson, T. B. (1995). We hate gym: Student alienation from physical education. *Journal of Teaching in Physical Education*, 14, 467-477.
- Centers for Disease Control and Prevention (CDC), ( 2001). *Physical activity and good nutrition: Essential elements to prevent chronic diseases and obesity*. Retrieved October 25, 2001, from <http://www.cdc.gov/nccdphp/dnpa/dnpaaag.htm>

- Centers for Disease Control and Prevention (CDC), (2004). *Physical activity and health: A report of Surgeon General*. Washington, DC: U. S. Department of Health and Human Services.
- Centers for Disease Control and Prevention (CDC), (2006). *Overweight and obesity*. Retrieved March 10, 2006, from <http://www.cdc.gov/nccdphp/dnpa/obesity/>
- Chen, A. (1998). Meaningfulness in physical education: A description of high school students' conceptions. *Journal of Teaching in Physical Education, 17*, 270-306.
- Chen, A. (2001). A theoretical conceptualization for motivation research in physical education: An integrated perspective. *Quest, 53*, 35-58.
- Chung, A., Kanter, A. A., & Stonehill, R. M. (2002). Ensuring quality and sustainability in after-school programs. *New Directions for Youth Development, 94*, 133-139.
- Church, M. A., Elliot, A. J., & Gable, A. L. (2001). Perceptions of classroom environment, achievement goals and achievement outcomes. *Journal of Educational Psychology, 93*, 43-54.
- Clark, G. H. (1971). *A process of obtaining information formation and attitudes of children regarding elementary school*. Unpublished doctoral dissertation, Columbia University, Columbia.
- Clark, L. A., & Watson, D. (1995). Constructing validity: Basic issues in objective scale development. *Psychological Assessment, 7*, 309-319.
- Clendenin, A. A., Businelle, M. S., & Kelley, M. L. (2005). Screening ADHD problems in the sport behavior checklist: Factor structure, convergent and divergent validity, and group differences. *Journal of Attention Disorders, 8*, 79-87.

- Cothran, D. J. & Ennis, C. D. (1998). Curricula of mutual worth: Comparisons of students' and teachers' curricular goals. *Journal of Teaching in Physical Education, 17*, 307–327.
- Covington, M. V. (2000). Goal theory, motivation, and school achievement: An integrative review. *Annual Review of Psychology, 51*, 171-200.
- Covington, M. V. & Beery, R. G. (1976). *Self worth and school learning*. New York: Holt, Rinehart & Winston.
- Crespo, C. J., Smit, E., Andersen, R. E., Carter-Pokras, O., & Ainsworth, B. E. (2000). Race/ethnicity, social class, and their relation to physical inactivity during leisure time: Results from the Third National Health and Nutrition Examination Survey, 1988-1994. *American Journal of Preventative Medicine, 18*, 46, 53.
- Cronbach, L. (1951). Coefficient alpha and the internal structures of tests. *Psychometrika, 16*, 297-334.
- Cury, F. (1999). New directions for achievement goals theory in sport: Development and predictive validity of the AAASQ. *Journal of Sport and Exercise Psychology, 20*, S15.
- Cury, F. (2000). Predictive validity of the approach and avoidance achievement in sport model. *Journal of Sport and Exercise Psychology, 22*, S32.
- 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.

- Cury, F., Elliot, A., Sarrazin, P., Da Fonseca, D., & Rufo, M. (2002). The trichotomous achievement goal model and intrinsic motivation: A sequential mediational analysis. *Journal of Experimental Social Psychology, 38*, 473–481.
- Downing, J. H. (1996). Establishing a proactive discipline plan in elementary physical education. *Journal of Physical Education, Recreation and Dance, 6*, 25-30.
- Doyle, W. (1986). Classroom organization and management. In M. Wittrock (Ed.), *Handbook of research on teaching* (3rd ed., pp. 392-431). New York: Macmillan.
- Doyle, W. (1990). Classroom management techniques. In O. C. Moles (Ed.), *Student discipline strategies: Research and practice* (pp. 113-129). Albany, NY: SUNY Press.
- Duda, J. L. (1989). Relationship between task and ego orientation and the perceived purpose of sport among high school athletes. *Journal of Sport and Exercise Psychology, 11*, 318-335.
- Duda, J. L. (1992). Motivation in sport settings: A goal perspective approach. In G. C. Roberts (Ed.), *Motivation in sport and exercise* (pp. 57-92). Champaign, IL: Human Kinetics.
- Duda, J. L., & Nicholls, J. (1992). Dimensions of achievement motivation in schoolwork and sport. *Journal of Educational Psychology, 84*, 290-299.

- Duda, J. L., & Whitehead, J. (1998). Measurement of goal perspectives in the physical domain. In J. L. Duda (Ed.), *Advances in sport and exercise psychology measurement* (pp. 21-48). Morgantown, WV: Fitness Information Technology, Inc.
- DuPaul, G. J., & Hoff, K. E. (1998). Reducing disruptive behavior in general education classrooms: The use of self-management strategies. *School Psychological Review, 27*, 290-303.
- Dweck, C. S. (1986). Motivational processes affecting learning. *American Psychologist, 41*, 1040-1048.
- Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Orlando, FL: Harcourt Brace Jovanovich.
- Earl, L. M., & Stennett, R. G. (1987). Student attitudes toward physical and health in secondary schools in Ontario. *Canadian Alliance of Health, Physical Education and Recreational Journal, 53*, 4-11.
- Eccles, J. S., Adler, T. T., Futterman, R., Goff, S. B., Kaczala, C. M., Meece, J. L., & Midgley, C. (1983). Expectancies, values, and academic behaviors. In J. T. Spence (Ed.), *Achievement and achievement motivation* (pp. 75-146). San Francisco, CA: W. H. Freeman.
- 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* (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. (1999). Test anxiety and the hierarchical model of approach and avoidance achievement motivation. *Journal of Personality and Social Psychology, 76*, 549-563.
- Elliot, A. J., & McGregor, H. A. (2001). A 2\*2 achievement goal model. *Journal of Personality and Social Psychology, 80*, 501-519.
- 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.
- Ennis, C. D. (1996). Students' experience in sport-based physical education: [More than] apologies are necessary. *Quest, 48*, 453-456.

- Erpic, S. C., Skof, B., Boben, D., & Zabukovec, V. (2005). Pupils' attitudes and motivation for physical education - some psychological aspects of physical education: Pupils' attitudes and motivation. *International Journal of Physical Education*, 42, 58-67.
- Ferguson K. J., Yesalis, C. E., Pomrehn, P. R., & Kirkpatrick, M. B. (1989). Attitudes, knowledge, and beliefs as predictors of exercise intent and behavior in schoolchildren. *Journal of School Health*, 59, 112-115.
- Fernandez-Balboa, J. M. (1991). Beliefs, interactive thoughts, and actions of physical education student teachers regarding pupil misbehaviors. *Journal of Teaching in Physical Education*, 11, 59-78.
- Field, A. (2000). *Discovering statistics using SPSS for windows*. Thousand Oaks, CA: Sage Publications.
- Fink, J., & Siedentop, D. (1989). The development of routines, rules, and expectations at the start of the school year. *Journal of Teaching Physical Education*, 8, 198-212.
- Flohr, J. A., & Toms, J. A. (1997). Rural fourth graders perceptions of physical fitness and fitness test. *The Physical Educator*, 54, 78-87.
- Floyd, F. J., & Widaman, K. F. (1995). Factor analysis in the development and refinement of clinical assessment instruments. *Psychological Assessment*, 7, 286-299.
- Fox, K., & Biddle, S. (1988). Children participation motives. *British Journal of Physical Education*, 19, 34-38.

- Freeman, T. M., & Anderman, L. H. (2005). Changes in mastery goals in urban and rural middle school students. *Journal of Research in Rural Education, 20*, 1-13.
- Gayl, C. L. (2004). *After-school programs: Expanding access and ensuring quality*. Retrieved August 3, 2006, from [http://www.ppionline.org/documents/afterschool\\_0704.pdf](http://www.ppionline.org/documents/afterschool_0704.pdf)
- Glaser, B. G., & Strauss, A. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Chicago: Aldine.
- Gonzales, V. E. (1992). *On human attitudes: Root metaphors in theoretical conceptions*. Göteborg, Sweden: Vasastadens Bokbinderi AB.
- Goudas, M., Biddle, S., & Fox, K. (1994). Achievement goal orientations and intrinsic motivation in physical fitness testing with children. *Pediatric Exercise Science, 6*, 159-167.
- Graham, G. (1995). Physical education through students' eyes and in students' voices: Introduction. *Journal of Teaching in Physical Education, 14*, 364-371.
- Graham, G., Castenada, R., Eddleman, K., Mustain, W., Sanders, S., & Stone, A. (1992). Do children associate fitness with fun? *Teaching Elementary Physical Education, 3*, 9.
- Graham, G., Holt/Hale, S. A., & Parker, M. (1998). *Children moving: A reflective approach to teaching physical education* (4th ed.). Mountain View, CA: Mayfield.
- Guan, J. (2004). *Achievement goals among high school students in physical education*. Unpublished doctoral dissertation, Texas A&M University, College Station.



- Hall, H. K., & Earles, M. (1995). Motivational determinants of interest and perceptions of success in school physical education. *Journal of Sport and Exercise Psychology, 17*, (Suppl.), S57.
- Halpern, R. (2002). A different kind of child development institution: The history of after-school programs for low-income children. *Teachers College Records, 104*, 178-211.
- 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., & Elliot, A. J. (1998). Rethinking achievement goals: When are they adaptive for college students and why? *Educational Psychologist, 33*, 1-21.
- 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.
- Hatcher, L. (1994). *A step-by-step approach to using the SAS system for factor analysis and structural equation modeling*. Cary, NC: SAS Institute Inc.
- Heck, R. H. (1998). Factor analysis: Exploratory and confirmatory approaches. In G.A., Marcolides (Ed.), *Modern methods for business research* (pp. 177-215). Mahwah, NJ: Lawrence Erlbaum.

- Hofferth, S. (1995). Out-of-school time: Risk and opportunity. In T. Swartz and K. Wright (Eds.), *America's working poor* (pp. 123-153). South Bend, IN: Notre Dame University Press.
- Hu, L., & Bentler, P. M. (1995). Evaluating model fit. In R. H. Hoyle (Ed.), *Structural equation modeling: Concepts, issues, and applications* (pp. 76-99). London: Sage.
- Jöreskog, K., & Sörbom, D. (1993). *LISREL 8: Structural equation modeling with the SIMPLIS command language*. Hillsdale, NJ: Erlbaum.
- 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.
- King, A. C., Castro, C., Wilcox, S., Eyler, A. A., Sallis, J. F., & Brownson, R. C. (2000). Personal and environmental factors associated with physical activity among racial-ethnic groups of US middle-aged and older-aged women. *Health Psychology*, 19, 354-364.
- Kline, R. B. (1998). *Principles and practice of structural equation modeling*. New York: Guildford Press.
- Kounin, J. (1970). *Discipline and group management in classrooms*. New York: Holt, Rinehart & Winston.

- Kulinna, P. H., Cothran, D., & Regualos, R. (2003). Development of an instrument to measure student disruptive behavior. *Measurement in Physical Education and Exercise Science, 7*, 25-41.
- Kulinna, P. H., Cothran, D., & Regualos, R. (2006). Teachers' reports of student misbehavior in physical education. *Research Quarterly for Exercise and Sport, 77*, 32-40.
- Lee, A. M., Carter, J. A., & Xiang, P. (1995). Children's conceptions of ability in physical education. *Journal of Teaching in Physical Education, 14*, 384-393.
- Lemyre, P. N., Roberts, G. C., & Ommundsen, Y. (2002). Achievement goal orientations, perceived ability and sportpersonship in youth soccer. *Journal of Applied Sport Psychology, 14*, 120-136.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, CA: Sage publishing, Inc.
- Luepker, R. V., Perry, C. L., McKinlay, S. M., Nader, P. R., Parcel, G. S., Stone, E. J., et al. (1996). Outcomes of a field trial to improve children's dietary patterns and physical activity: The child and adolescent trial for cardiovascular health. *The Journal of the American Medical Association, 275*, 768-76.
- Luke, M. D. & Cope, L. D. (1994). Student attitude toward teacher behavior and program content in school physical education. *The Physical Educator, 51*, 57-66.
- Macintosh, D., & Albinson, J. (1982). Physical education in Ontario secondary schools. *The Canadian Association for Health, Physical Education, Recreation and Dance, 48*, 14-17.

- Maehr, M. L. (1983). On doing well in science: Why Johnny no longer excels; Sarah never did. In S. G. Paris, G. M. Olson, & H. W. Stevenson (Eds.), *Learning and motivation in classroom* (pp. 179-210). Hillsdale, NJ: Erlbaum.
- 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.
- Matheson, S., Moon, M., & Winiecki, A. (2000). *Improving student ability to follow directions through the use of listening skill instruction*. Unpublished master's thesis, Saint Xavier University, Chicago Illinois.
- McCaughy, N., Martin, J., Hodges-Kulinna, P., & Cothran, D. (2006). Emotional dimensions of teacher change. *Journal of Teaching in Physical Education, 25*, 99-119.
- McClelland, D. C. (1961). *The Achieving Society*. Princeton, NJ: D. Van Nostrand Company, Inc.
- McCormack, A. (1997). Classroom management problems, strategies and influences in physical education. *European Physical Education Review, 3*, 102-115.
- McGregor, H. A., & Elliot, A. J. (2002). Achievement goals as predictors of achievement-related processes prior to task engagement. *Journal of Educational Psychology, 94*, 381-395.
- McIver, J. P. & Carmines, E. G. (1981). Unidimensional scaling. *Quantitative Applications in Social Science, 24*, 96-107.

- McMurray, R. G., Harrell, J. S., Deng, S., Bradley, C. B., Cox, L. M., & Bangdiwala, S. I. (2000). The influence of physical activity, socioeconomic status, and ethnicity on the weight status of adolescents. *Obesity Research, 8*, 130–139.
- McNutt, K. (2002). *Hooked on hoops: Understanding Black youths' blind devotion to basketball*. Chicago, IL: African American Images.
- Meece, J. L., Blumenfeld, P. C., & Hoyle, R. H. (1988). Students' goal orientations and cognitive engagement in classroom activities. *Journal of Educational Psychology, 80*, 514-523.
- Midgley, C., Kaplan, A., & Middleton, M. (2001). Performance-approach goals: Good for what, for whom, under what circumstances, and at what cost? *Journal of Educational Psychology, 93*, 77-86.
- Midgley, C., & Urdan, T. (2001). Academic self-handicapping and achievement goals: A further examination. *Contemporary Educational Psychology, 26*, 61-75.
- Mohsin, S. M. (1990). *Attitude: Concept, formation and change*. New Delhi, India: Wiley.
- Morgan, C. F., Pangrazi, R. P., & Beighle, A. (2003). Using pedometers to promote physical activity in physical education. *Journal of Physical Education Recreation and Dance, 74*, 33-38.
- National Association for Sport and Physical Education (NASPE), (1998). *Shape of the nation report: A survey of state physical education requirements*. Alliance for Health, Physical Education, Recreation and Dance, Reston, VA.

- Newton, M., Watson, D. L., Kim, M., & Beacham, A. O. (2006). Understanding motivation of underserved youth in physical activity settings. *Youth and Society, 37*, 348-371.
- Nicholls, J. G. (1984). Achievement motivation: Conceptions of ability, subjective experience, task choice, and performance. *Psychological Review, 91*, 328-346.
- Nicholls, J. G. (1989). *The competitive ethos and democratic education*. Cambridge, MA: Harvard University Press.
- Nock, M. K., & Kurtz, S. M. S. (2005). Direct behavioral observation in school settings: Bringing science to practice. *Cognitive and Behavioral Practice, 12*, 359-370.
- Nunnally, J. C., & Bernstein, I. H. (1994). *Psychometric theory* (3rd ed.). New York: McGraw Hill.
- O'Hagan, F., & Edmunds, G. (1982). Pupils' attitudes towards teachers' strategies for controlling disruptive behavior. *British Journal of Educational Psychology, 52*, 331-340.
- Ommundsen, Y. (2001). Pupils' affective responses in physical education classes: The association of implicit theories of the nature of ability and achievement goals. *European Physical Education Review, 7*, 219-242.
- Oswald, K., Safran, S., & Johanson, G. (2005). Preventing trouble: Making schools safer places using positive behavior supports. *Education and Treatment of Children, 28*, 265-278.

- Papaioannou, A. (1990). *Goal perspectives, motives for participation, and purposes of P.E. lessons in Greece as perceived by 14 and 17 year old pupils*. Unpublished master's thesis, University of Manchester, England.
- Papaioannou, A. (1998). Goal perspectives, reasons for being disciplined and self-reported discipline in physical education lessons. *Journal of Teaching in Physical Education, 17*, 421-441.
- Pate, R., Heath, G., Dowda, M., & Trost, S. (1996). Association between physical activity and other health behaviors in a representative sample of US adolescents. *American Journal of Public Health, 86*, 1577-1581.
- Patrick, H., Anderman, L. H., Ryan, A. M., Edelin, K. C., & Midgley, C. (2001). Teachers' communication of goal orientations in four fifth-grade classrooms. *The Elementary School Journal, 102*, 35-58.
- Pintrich, P. R. (1994). Continuities and discontinuities: Future directions for research in educational psychology. *Educational Psychologist, 29*, 137-148.
- 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., & Schunk, D. H. (1996). *Motivation in education: Theory, research, and applications*. Englewood Cliffs, NJ: Merrill-Prentice Hall.
- Portman, P. A. (1995). Who is having fun in physical education classes? Experiences of sixth-grade students in elementary and middle schools. *Journal of Teaching in Physical Education, 14*, 445-453.

- Posner, J. K., & Vandell, D. L. (1994). Low-income children's after-school care: Are there beneficial effects of after-school programs? *Child Development, 65*, 440-456.
- Prochaska, J. J., Sallis, J. F., Slymen, D. J., & McKenzie, T. L. (2003). A longitudinal study of children's enjoyment of physical education. *Pediatric Exercise Science, 15*, 170-178.
- Ratliffe, T., Imwold, C., & Conkell, C. (1994). Children's views of their third grade physical education class. *The Physical Educator, 51*, 106-111.
- Rhode, G., Morgan, D. P., & Young, K. R. (1983). Generalization and maintenance of treatment gains of behaviorally handicapped students from resource rooms to regular classrooms using self-evaluation procedures. *Journal of Applied Behavior Analysis, 16*, 171-188.
- Rice, P. L. (1988). Attitudes of high school students toward physical education activities, teachers, and personal health. *The Physical Educator, 45*, 94-99.
- Roberts, G. C. (2001). Understanding the dynamics of motivation in physical activity: The influence of achievement goals on motivational processes. In G. C. Roberts (Ed.), *Advances in motivation in sport and exercise* (pp. 1-50). Champaign, IL: Human Kinetics.
- Roberts, G. C., Treasure, D. C., & Balague, G. (1998). Achievement goals in sport: The development and validation of the perception of success questionnaire. *Journal of Sports Sciences, 16*, 337-347.



- Robinson, D. W. (1990). An attributional analysis of student demoralization in physical education setting. *Quest, 42*, 27–39.
- Ryan, S., Fleming, D., & Maina, M. (2003). Attitudes of middle school students towards their physical education teachers and classes. *The Physical Educator, 60*, 28-42.
- Ryan, A. M., & Pintrich, P. R. (1997). Should I ask for help? The role of motivation and attitude in adolescents' help seeking in math class. *Journal of Educational Psychology, 88*, 408-422.
- Safrit, M. J., & Wood, T. M. (1995). *Introduction to measurement in physical education and exercise science (3rd ed.)*. St. Louis, MO: Mosby.
- Sallis, J. F., & McKenzie, T. L. (1991). Physical education's role in public health. *Research Quarterly for Exercise and Sport, 62*, 124–37.
- Sallis, J. F., Simons-Morton, B., Stone, E., Corbin, C., Epstein, L. H., Faucette, H., et al. (1992). Determinants of physical activity and intervention in youth. *Medicine and Science in Sports and Exercise, 24* (Suppl.), S248-S257.
- Schunk, D. H., & Miller, S. D. (2002). Self-efficacy and adolescents' motivation. In F. Pajares & T. Urdan (Eds.), *Academic motivation of adolescents* (pp. 29-52). Greenwich, CT: Information Age.
- Shih, S. (2005). Taiwanese sixth graders' achievement goals and their motivation, strategy use, and grades: An examination of the multiple goal perspective. *The Elementary School Journal, 106*, 39-58.

- Skaalvik, K. M. (1997). Self-enhancing and self-defeating ego orientation: Relations with task and avoidance orientation, achievement, self-perceptions, and anxiety. *Journal of Educational Psychology, 89*, 71-81.
- Smith, M., Duda, J., Allen, J., & Hall, H. (2002). Contemporary measures of approach and avoidance goal orientations: Similarities and differences. *British Journal of Educational Psychology, 72*, 155-190.
- 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.
- Solmon, M. A., & Boone, J. (1993). The impact of student goal orientation in physical education classes. *Research Quarterly for Exercise and Sport, 64*, 418-424.
- Solmon, M. A., & Carter, A. (1995). Kindergarten and first-grade students' perceptions of physical education in one teacher's classes. *Elementary School Journal, 95*, 335-365.
- Standage, M., & Treasure, D. C. (2002). Relationship among achievement goal orientations and multidimensional situational motivation in physical education. *British Journal of Educational Psychology, 72*, 87-103.
- Subramaniam, P. R., & Silverman, S. (2000). Validation of scores from an instrument assessing student attitude toward physical education. *Measurement in Physical Education and Exercise Science, 4*, 29-43.
- Supaporn, S. (2000). High school students' perspectives about misbehavior. *The Physical Educator, 57*, 124-136.

- Supaporn, S., Dodds, P., & Griffin, L. (2003). An ecological analysis of middle school misbehavior through student and teacher perspective. *Journal of Teaching Physical Education, 22*, 328-349.
- Texas Educational Agency (TEA), (2006). *2006 Accountability system district and school accountability ratings*. Retrieved October 26, 2006, from <http://www.tea.state.tx.us/perfreport/account/2006/statelist.html>
- Texas Educational Agency (TEA), (2007). *Texas 21st century community learning centers grant program*. Retrieved February 14, 2007, from <http://www.tea.state.tx.us/21century/index.html>
- Thurstone, L. L. (1928). Attitudes can be measured. *American Journal of Sociology, 33*, 529-554.
- Thurstone, L. L. (1931). The measurement of social attitudes. *Journal of Abnormal and Social Psychology, 26*, 249-269.
- Treasure, D. C., & Roberts, G. C. (1994). Perception of success questionnaire: Preliminary validation in an adolescent population. *Perceptual and Motor Skills, 79*, 607-610.
- Triandis, H. C. (1971). *Attitude and attitude change*. New York: John Wiley & Sons.
- Turner, J. C., & Meyer, D. K. (2000). Studying and understanding the instructional contexts of classroom: Using our past to forge our future. *Educational Psychologist, 35*, 69-85.

- Turner, J. C., Midgley, C., Meyer, D. K., Gheen, M., Anderman, E. M., Kang, Y., et al. (2002). The classroom environment and students' reports of avoidance strategies in mathematics: A multimethod study. *Journal of Educational Psychology, 94*, 88–106.
- Urduan, T. (2004). Predictors of self-handicapping and achievement: Examining achievement goals, classroom structures, and culture. *Journal of Educational Psychology, 96*, 251-264.
- Urduan, T., & Midgley, C. (2001). Academic self-handicapping: What we know, what more there is to learn. *Educational Psychology Review, 13*, 115-138.
- U.S. Department of Health and Human Services. (USDHHS), (1996). *Physical activity and health: A report of the Surgeon General*. Atlanta: Centers for Disease Control and Prevention, National Center for Chronic Disease Prevention and Health Promotion.
- Vandewalle, D. (1997). Development and validation of a work domain goal orientation instrument. *Educational and Psychological Measurement, 57*, 995-1015.
- Van Wersch, A. V., Trew, K., & Turner, I. (1992). Post-primary school pupil's interest in physical education: Age and gender differences. *British Journal of Educational Psychology, 62*, 56-72.
- Veugelers, P. J., & Fitzgerald, A. L. (2005). Effectiveness of school programs in preventing childhood obesity: A multilevel comparison. *American Journal of Public Health, 95*, 432-436.

- Vickers, M. H., Simpson, K. B., Fitzgerald, T., & Dowson, M. (2004). *Predictors of adolescents' academic achievement and engagement in school*. Retrieved August 10, 2006, from, [http://self.uws.edu.au/Conferences/2004\\_Vickers\\_Simpson\\_Fitzgerald\\_Dowson.pdf](http://self.uws.edu.au/Conferences/2004_Vickers_Simpson_Fitzgerald_Dowson.pdf).
- Wagner, P. (2004). Trimming the fat: Poor diet and inactivity hurt children and state's future, Texas Comptroller's Office, *Fiscal News*, 5, 2-3.
- Walling, M. D., & Duda, J. L. (1995). Goals and their associations with beliefs about success in and perceptions of the purposes of physical education. *Journal of Teaching Physical Education*, 14, 140-156.
- Wang, C. K. J., Chatzisarantis, N. L. D., Spray, C. M., & Biddle, S. J. H. (2002). Achievement goal profiles in school physical education: Differences in self determination, sport ability beliefs, and physical activity. *British Journal of Educational Psychology*, 72, 433-445.
- Warkentin, R. W., & Bates, J. A. (1994, April). *Discontinues in science teaching: A developmental analysis*. Paper presented at the annual conference of the American Educational Research Association, New Orleans, LA.
- Watson, D. L., Poczwadowski, A., & Eisenman, P. (2000). After-school physical activity programs for adolescent girls. *Journal of Physical Education, Recreation, and Dance*, 71, 17-27.
- Weiner, B., & Kukla, A. (1970). An attributional analysis of achievement motivation. *Journal of Personality and Social Psychology*, 15, 1-20.

- Wigfield, A. & Eccles, J. S. (2000). Expectancy-value theory of achievement motivation. *Contemporary Educational Psychology, 25*, 68-81.
- Xiang, P., & Lee, A. (1998). The development of self-perceptions of ability and achievement goals and their relations in physical education. *Research Quarterly for Exercise and Sport, 69*, 231-241.
- 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., & Shen, J. (2001). Conceptions of ability and achievement goals in physical education: Comparisons of American and Chinese students. *Contemporary Educational Psychology, 26*, 348-365.
- 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.
- Xiang, P., McBride, R., & Bruene, A. (2003). Relations of parents' beliefs to children's motivation in an elementary physical education running program. *Journal of Teaching in Physical Education, 22*, 410-425.
- Xiang, P., McBride, R., & Guan, J. (2004). Children's motivation in elementary physical education: A longitudinal study. *Research Quarterly for Exercise and Sport, 75*, 71-80.

- Xiang, P., McBride, R., & Solmon, M. A. (2003). Motivational climates in ten teachers' elementary physical education classes: An achievement goal theory approach, *The Elementary School Journal*, 104, 71-91.
- Yin, Z., Hanes, J., Moore, J. B., Humbles, P., Barbeau, P., & Gutin, B. (2005). An after-school physical activity program for obesity prevention in children. *Evaluation and the Health Professions*, 28, 67-89.

## APPENDIX A

CHILDREN'S ACHIEVEMENT GOALS AND RELATED ATTITUDINAL AND  
BEHAVIORAL RESPONSES IN AFTER-SCHOOL PHYSICAL ACTIVITY  
PROGRAM

**Direction:** Please answer each question truthfully. **Circle one number only on each statement.** There are no right or wrong answers. If you have questions, please ask me.

- Your name \_\_\_\_\_ (first) \_\_\_\_\_ (last)
- Date of Birth \_\_\_\_\_ (year)
- Are you a boy or girl? \_\_\_\_\_
- What grade are you in? \_\_\_\_\_
- Are you? African-American \_\_\_\_\_ White-American \_\_\_\_\_  
Hispanic \_\_\_\_\_ Other \_\_\_\_\_

**In My After School Physical Activity Program...**

	<b>1 (Not at all true)</b>	<b>2 (Not true)</b>	<b>3 (No idea)</b>	<b>4 (True)</b>	<b>5 (Very true)</b>
1. I can do better than my friends	1	2	3	4	5
2. I try to learn as much as possible	1	2	3	4	5
3. I do not feel stupid.	1	2	3	4	5
4. I learn something that is fun to do.	1	2	3	4	5
5. I can run faster than other children.	1	2	3	4	5
6. Other children do not think that I am bad in activities.	1	2	3	4	5
7. I score the most points/goals/hits etc.	1	2	3	4	5
8. I do not look like that I cannot do activities.	1	2	3	4	5



**1 (Not at all true)      2 (Not true)      3 (No idea)      4 (True)      5 (Very true)**

- |   |          |          |          |          |          |
|---|----------|----------|----------|----------|----------|
| 9. I learn something new and it makes me want to practice more. | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
| 10. Others cannot do as well as me.                             | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
| 11. I'm the only one who can do the play or activity.           | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
| 12. The coach does not think I am less skilled than others.     | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
| 13. I learn something new by trying hard.                       | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
| 14. No one thinks that I am not good at activities.             | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
| 15. I do my very best.  | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |

**In My After School Physical Activity Program...**

**1 (Not like me)      2 (Little like me)      3 (Sort of like me)      4 (Like me)  
5 (Very much like me)**

- |   |          |          |          |          |          |
|---|----------|----------|----------|----------|----------|
| 16. I sometimes giggle with my friends while my teacher is talking. | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
| 17. I sometimes do not participate.                                 | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
| 18. I sometimes talk with my friends while my teacher is talking.   | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
| 19. I sometimes can't sit still.                                    | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
| 20. I sometimes do not pay attention to the teacher.                | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
| 21. I do not follow my teacher's directions.                        | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
| 22. I sometimes do not line up right.                               | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
| 23. I sometimes do not take care of equipment.                      | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |

**1 (Not like me)      2 (Little like me)      3 (Sort of like me)      4 (Like me)**

**5 (Very much like me)**

- |  |          |          |          |          |          |
|--|----------|----------|----------|----------|----------|
| 24. I sometimes leave the group during activity.                             | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
| 25. I sometimes make fun of other students.                                  | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
| 26. I sometimes move slowly on purpose.                                      | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
| 27. I sometimes quit what I am supposed to do.                               | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
| 28. I sometimes pretend to be sick so that I would not participate in class. | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
| 29. I sometimes keep others from working.                                    | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |

**In My After School Physical Activity Program...**

**1 (Strongly disagree)      2 (Disagree)      3 (Don't know)      4 (Agree)**

**5 (Strongly agree)**

- |   |          |          |          |          |          |
|---|----------|----------|----------|----------|----------|
| 30. I like my after-school physical education classes because we do many different things.            | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
| 31. I like my after-school physical education classes because I learn new games.                      | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
| 32. I like my after-school physical education classes because I learn to make healthful food choices. | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
| 33. I like my after-school physical education classes because I have fun.                             | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |
| 34. I like my after-school physical education classes because I move around a lot.                    | <b>1</b> | <b>2</b> | <b>3</b> | <b>4</b> | <b>5</b> |



Disruptive Behaviors	Frequency										Total Frequency
<i>3. Low Engagement or Irresponsibility</i>	1	2	3	4	5	6	7	8	9	10	
Moves slowly on purpose											
Leaving group during activity											
Being timed out											
Doesn't participate											

APPENDIX C  
STUDENT ASSENT FORM

On the extreme Learning Hearne Community Learning Center (CLC) Registration Form and in a follow up Permission Form from the Hearne ISD, my mom/dad provided permission for me to take part in any research done during after school program, particularly with the Department of Health & Kinesiology at Texas A&M University. I have been invited to participate in a study to assess possible benefits of the physical activity part of the after school program. There will be about 100 students in Grades 3-6 participating in this study. During my regular activity games, I will complete the Children's Motivation Questionnaire (CMQ), The New Jersey Test of Reasoning Skills (NJTRS) and have my fitness levels assessed using the Fitnessgram three times during the year (i.e., February, June, and September) for the length of time I am in the after school program. There are three sections to the questionnaire: Section 1 asks for my age, gender, ethnicity and grade level, Section 2 asks question about my participation in the p.e. activities, and Section 3 asks me about my beliefs in participating in the p.e. activities after school. The NJTRS will test my problem solving skills, while the Fitnessgram will show me how fit I am. None of these has anything to do with my school grades or records. I may be chosen for an interview that should last no longer than 15 minutes. The interview will be about what I think about the p.e. activities in the after school program. I may also be videotaped during problem solving activities with my friends. The interviews will be tape recorded so A&M team can study them and all audio and videotapes will be erased after the study. No one else will know my answers and they can be turned off if I ask.

Participation in the project is up to me, there are no risks involved, and I may choose not to participate or stop at any time without getting into any trouble. If I have additional questions or inquiries, I can call Dr. Ron McBride Texas A&M. I understand that this project has been reviewed and approved by the Institutional Review Board-Human Subjects in Research (IRB), Texas A&M University. For research-related problems or questions regarding subjects' rights, I can contact the IRB through Dr. Michael W. Buckley, Director of Support Services, Office of Vice President for Research at: (979) 458-4067.

Principal Investigator:

Dr. Ron E. McBride  
Dept. of Health and Kinesiology  
Texas A&M University  
College Station, TX 77843-4243  
(979) 845-8788: rmac@tamu.edu

I have read and understand the explanation given to me. I have had all my questions answered to my satisfaction, and I voluntarily agree to participate in this study. I have been given a copy of this assent form.

\_\_\_\_\_  
Signature of Child

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Principal Investigator

\_\_\_\_\_  
Date

If there is any part of the project that I do NOT want to join in, please indicate below:

1. I \_\_\_\_\_ give permission to participate in the project but I do NOT want to be interviewed

\_\_\_\_\_  
Signature of Child

\_\_\_\_\_  
Date

2. I \_\_\_\_\_ give permission to participate in the project but I do NOT want to be videotaped

\_\_\_\_\_  
Signature of Child

\_\_\_\_\_  
Date

3. I \_\_\_\_\_ **do not** give my permission form to participate in the project

\_\_\_\_\_  
Signature of Child

\_\_\_\_\_  
Date

## APPENDIX D

INFORMED CONSENT FORM  
(PARENT/GUARDIAN)

After School Program on Children's Motivation, Thoughtful Decision Making and Physical Activity As noted on the extreme Learning Hearne Community Learning Center (CLC) Registration Form and in a follow up Permission Form from the Hearne ISD, my child may be asked to take part in studies research done during the program, particularly with the Department of Health & Kinesiology at Texas A&M University. My child has been invited to participate in a study to assess possible benefits of the physical activity component of the CLC after school program. There will be about 100 students in Grades 3-6 participating in this study. During the regularly scheduled activity component my child will complete the Children's Motivation Questionnaire (CMQ), The New Jersey Test of Reasoning Skills (NJTRS) and have his/her fitness levels assessed using the Fitnessgram three times during the year (i.e., February, June, and September) for the length of time he/she participates in the CLC after school program. There are three sections to the CMQ: Section 1 requests demographic information only including age, gender, ethnicity and grade level, Section 2 assess children's achievement goals for participation in the activity component, and Section 3 collects information about children's expectancy-related beliefs and task values of participating in the activity component. The NJTRS assesses children's problem solving skills, while the Fitnessgram assesses the health-related fitness components of children. None of these measures has anything to do with school grades or records. My child may be chosen for an interview that should last no longer than 15 minutes. The interview will be about my child's perceptions of participating in the activity component of the after school program. My child may also be videotaped during group problem solving activities designed to assess thinking skills. The interviews will be audiotaped for the purpose of data analysis only and all audio and videotapes will be erased upon completion of the study. My child's answers will be completely confidential and the tape and video recorders can be shut off if requested.

Participation in the project is voluntary, there are no risks involved, and my child may choose not to participate or withdraw at any time without penalty. If my child is uncomfortable with any of the test items, s/he does not have to answer it. If I have additional questions or inquiries, I can call Dr. Ron McBride at the number listed below. *Should this signed form not be returned to the school, I may be contacted personally for verification of my child's participation in this project.*

I understand that this research study has been reviewed and approved by the Institutional Review Board-Human Subjects in Research (IRB), Texas A&M University. For research-related problems or questions regarding subjects' rights, *I can contact the IRB through Ms Angelia Raines, Director of Research Compliance, Office of Vice President for Research at: (979) 458-4067.*

Principal Investigator:

Dr. Ron E. McBride  
 Dept. of Health and Kinesiology  
 Texas A&M University  
 College Station, TX 77843-4243  
 (979) 845-8788: rmac@tamu.edu

I have read and understand the explanation provided to me. I have had all my questions answered to my satisfaction, and I voluntarily agree to allow my child \_\_\_\_\_ to participate in this study. I have been given a copy of this consent form.

\_\_\_\_\_  
 Signature of Parent or Guardian

\_\_\_\_\_  
 Date

\_\_\_\_\_  
 Signature of Principal Investigator

\_\_\_\_\_  
 Date

If there is any part of the project that you do NOT want your child to participate in, please indicate below:

1. I give permission for my child \_\_\_\_\_ to participate in the project but he/she may NOT be interviewed

\_\_\_\_\_  
 Signature of Parent or Guardian

\_\_\_\_\_  
 Date

\_\_\_\_\_  
 Signature of Principal Investigator

\_\_\_\_\_  
 Date

2. I give permission for my child \_\_\_\_\_ to participate in the project but he/she may NOT be videotaped

\_\_\_\_\_  
 Signature of Parent or Guardian

\_\_\_\_\_  
 Date

\_\_\_\_\_  
 Signature of Principal Investigator

\_\_\_\_\_  
 Date

3. I **do not** give my permission form my child \_\_\_\_\_ to participate in the project

\_\_\_\_\_  
 Signature of Parent or Guardian

\_\_\_\_\_  
 Date

\_\_\_\_\_  
 Signature of Parent or Guardian

\_\_\_\_\_  
 Date

I have been given a copy of this consent form.



## VITA

Name: Bulent Agbuga

Address: Texas A&M University, College Station  
Department of Health and Kinesiology

Email Address: bakboga@yahoo.com

Education: Ph.D., Kinesiology, Texas A&M University-College Station, 2007  
M.S., Kinesiology, Texas A&M University-Commerce, 2002  
B.S., Physical Education and Sports, Middle East Technical  
University, Turkey, 1993

Professional Experience: Physical Education Coordinator, Hearne/Texas, 2004-2007  
University Apartments Community Assistant, Texas A&M  
University-College Station, 2004-2006  
Graduate Assistant, Texas A&M University-Commerce, 2000-2002  
Elementary Physical Education Teacher, Turkey, 1997-1999  
High School Physical Education Teacher, Turkey, 1994-1997

Selected Honors and Awards: Texas A&M University, Academic Excellence Scholarship  
(\$4500), May 2006  
Texas A&M University-Student Research Week Oral presentation,  
2nd place (\$100), April 2005  
Texas A&M University-College Station, Graduate School  
Scholarship, (\$500), January 2005  
Texas A&M University-College Station /English Language  
Institute, selected as the first best place in the composition class,  
November, 2004  
Selected as the Recipient of the Turkish Ministry of National  
Education Graduate Study Scholarship for Master and Ph.D. in the  
area of Physical Education & Sports in the USA, June, 1999