

PERFORMANCE GOAL PRACTICES: CHARACTERISTICS OF TEACHER USAGE  
AND IMPLICATIONS FOR SOCIAL RELATIONSHIPS IN ELEMENTARY  
SCHOOL CLASSROOMS

A Dissertation

by

LISA SUZANNE PETERSON

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

August 2012

Major Subject: School Psychology

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## ABSTRACT

Performance Goal Practices: Characteristics of Teacher Usage and Implications for Social Relationships in Elementary School Classrooms. (August 2012)

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Chair of Advisory Committee: Dr. Jan N. Hughes

Performance goal practices have been linked to negative behavioral and emotional outcomes in students. Despite this, little research has been done to understand what leads teachers to use these practices. Additionally, while there is significant research on individual characteristics of students based on their placement in classrooms with high or low performance goal practices, there is a lack of research on how these practices affect their social relationships. These questions were examined in this two journal article dissertation. In the first study, 461 elementary teachers were surveyed on their use of performance goal practices, as well as their years of teaching experience. They were also asked to determine the number of students who drained their energy, a measure of teacher perceived stress. Finally, students from these classrooms were surveyed using peer nominations to determine the number of aggressive students in each classroom, a measure of stress exposure. Multiple regression analyses were used to evaluate what elements of teacher stress might predict the use of performance goal practices in elementary classrooms. In the second study, 576 elementary teachers were surveyed on use their performance goal practices. Students were assessed on their

ability in reading and math, and peer nominations were used to determine to what degree each student was accepted by their peers. Hierarchical linear modeling was used to determine whether the use of performance goal practices moderated the relationship between academic achievement and peer acceptance.

Results from the first study indicate that teacher perceived stress and years of experience are predictors of the use of performance goal practices. Results from the second study indicate that in lower elementary classrooms only, the relationship between math achievement and peer acceptance was stronger in classrooms where the teachers reported a higher use of performance goal practices. Overall, these studies suggest that teachers who perceive more stress are more likely to use classroom practices that do not lead to optimal outcomes for their students. Results also demonstrate that for younger elementary students, these practices inform their decisions about classmates' likeability, which could be harmful to the social status of lower achieving students.

## ACKNOWLEDGEMENTS

I would like to thank my committee chair, Dr. Jan Hughes, for her guidance and mentoring over the course of my graduate career. She has truly trained me to become a researcher and scientist. I also thank my committee, Drs. Yoon, Witt, and Liew, for their support and assistance during this process.

Thank you to my professors, classmates, and friends at Texas A&M who made this time of my life a rewarding experience. Special thanks go to Dr. Anita McCormick for her mentorship, and to my cohort for joining me in the journey. I also am grateful for the support of my colleagues and supervisors at Dallas Independent School District, as well as everyone who has shaped my path during my career in education.

Finally, I would be nowhere without the love of my family. Thank you for everything you have done for me.

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## CHAPTER I

### INTRODUCTION

#### **Teachers Practices and Classroom Social Dynamics**

In schools today, many students are at risk for failure. Children may enter school with an academic deficiency such as poor preliteracy skills (MacDonald & Figueredo, 2010) or difficulties related to external factors such as poverty or limited English proficiency (Johannessen, 2004). It is up to the school to try to meet the needs of these students and help them overcome their challenges and find success. While this is a critical issue at all grade levels, it is particularly important during the elementary years, when children are first entering the school culture and are building the basic academic skills that are critical for future school success. Research indicates that a student's academic trajectory is established by fourth grade (Elias & Haynes, 2008); thus, these first years are critical for working with at-risk students.

Within the elementary school experience, the teacher to which a child is assigned has a significant impact on the child's level of academic success (Wayne & Youngs, 2003). When studying aspects of teachers that make a difference in students, one body of research has focused on instruction, examining teacher traits such as educational background, instructional methods, and teacher attitudes (Palardy & Rumberger, 2008).

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This dissertation follows the style of *Journal of Educational Psychology*.

Teachers also have other effects on both the internal qualities that students need to achieve academically, such as self-concept and motivation, and other personality traits such as social competence and leadership skills (Sylva, 1994). Teachers are also the leaders in the classroom, which is its own social microcosm; the individual relationships the teachers create with their students as well as the sense of community they create impact student success (Pianta & Stuhlman, 2004; Solomon, Battistich, Kim, & Watson, 1997).

This chapter provides an integrative theoretical account of the mechanisms by which teachers impact classroom social dynamics. Specifically, research from three theoretical perspectives on teacher practices is reviewed: teacher expectancy theory, task structure theory, and classroom goal structure theory. Each of these perspectives describes how teachers create classroom environments in which students understand their academic growth and success through the successes of their peers. In these classroom environments, students are compared to each other and may be treated differently based on their academic ability. Drawing from social comparison theory, it is argued that the tendency of people to seek out information about themselves through others (Darnon, Dompnier, Gillieron, & Butera, 2010) may be the underlying process that accounts for the effects of teacher practices as viewed from these three perspectives. The impact of these practices, particularly for at-risk students, will be examined, followed by implications for future research.

### *Teacher Expectancy Theory*

In managing a classroom, teachers are tasked with getting to know their students and building their academic abilities. Through this, they create expectations for their students' academic performance. For several decades, researchers have investigated how teacher expectations translate into teacher practices, and how these practices impact students. Research in this field began with Rosenthal and Jacobson (1968), whose Pygmalion experiment demonstrated that when teachers had high expectations for their students, students' levels of performance increased, an effect known as a *self-fulfilling prophecy*. This study led to research on teacher expectations, their influence on teacher practice, and the resulting effect on students. During the 1970s and 1980s this body of literature developed into a set of definitions and models called *teacher expectancy theory*. Kuklinski and Weinstein (2001) summarize the stages of teacher expectancy models in the following way: teachers form expectations about their students' future performance, which they communicate to students through their behavior, most commonly as differential practices for high expectancy achievers versus low expectancy achievers. This difference in expectations then leads to differences in educational opportunities, teacher-student interactions, and classroom climate that favor high achievers over low achievers and create risks to the students' adaptation.

Initially, teachers create expectations for their students' success during the school year. These expectations are often based on academic information about the students, such as having high expectations for students who have previously had high levels of academic success, while having lower expectations for students who have previously

had academic difficulties (Kuklinski & Weinstein, 2000). Sometimes the expectation for future academic success is in line with what the students has accomplished previously, but sometimes it is higher or lower (Rubie-Davies, 2011). Additionally, there is often bias in a teacher's expectations due to other non-academic variables (de Boer, Bosker, & van der Werf, 2010). An early meta-analysis (Dusek & Joseph, 1983) indicated that teacher expectations were influenced by student attractiveness, conduct, ethnicity, and social class. A more recent examination of teacher bias (de Boer, et al., 2010) indicated that teachers had expectations that were lower than predicted based on prior academic achievement for students who were male, had been previously retained, had parents with low aspirations, or had lower socioeconomic statuses. In studies of ethnicity bias, McKown and Weinstein (2008) found that have higher expectations for Caucasian and Asian American students than for African American and Hispanic students regardless of previous academic achievement, while Hughes, Gleason, and Zhang (2005) found that teachers rated the abilities of Caucasian and Hispanic students more positively than African American students. While most research has focused on expectations for individual students, a recent body of work has shown that teachers can also have overall higher or lower expectations for their students as a whole class, regardless of individual academic ability (Rubie-Davies, 2010).

Researchers have not only sought to understand why teachers have different expectations for their students, but which teacher behaviors are related to these expectancies. Brophy and Good (1970), for example, found that teachers gave more academic support to students when they had high expectations for their academic

success. These teachers expected a higher level of performance from these students and praised them for it, while accepting poorer work and giving less praise for quality work to students for whom they had low expectations. An early literature review (Brophy, 1983) described teacher behaviors that were used depending on their expectations. Four positive teacher behaviors were observed in use with high-expectancy students- building warm relationships with students, giving feedback, teaching more and increasingly difficult material, and giving opportunities for students to respond and answer questions. Brophy then identified 18 contrasting negative behaviors that limited student progress due to low expectations. These behaviors ranged from inappropriate levels of praise or feedback to expressing lower expectations and offering fewer opportunities for success.

Current research supports the notion that teachers often provide a higher quality education to students when they have higher expectations of their success (McKown & Weinstein, 2008). Another element of teacher behavior that is often seen in classes where high and low achieving students are treated with contrasting expectations is a difference in the management of the classroom (Weinstein, 2002). Higher differentiating teachers place students into fixed ability groups, use more extrinsic rewards, and use more negative behavior management strategies, while lower differentiating teachers use more mixed grouping and peer interaction, intrinsic motivation, and positive relationship building. Similarly, Rubie-Davies (2010) found that teachers who have overall higher expectations for their class used more mixed grouping and positive classroom management, while teachers with lower expectations used ability grouping and negative classroom management. The impact of teacher

expectations on student outcomes has been studied in many areas over the years with mixed results. Research on the connection between teacher expectancy and academic outcomes has indicated small but significant effects; however, these results have been debated because they did not take into account differences in levels of teacher differentiation (Kuklinski & Weinstein, 2001).

Recent studies have attempted to better understand the impact of teacher expectations, particularly for students who are low achievers. Kuklinski and Weinstein (2001) sampled students in first, third, and fifth grades and created a path analysis to determine if teacher expectations in reading affected children's self-expectations and end of year reading achievement, and if this effect was different in classrooms where there were higher levels of differentiated treatment between students. Teacher expectations and student perceptions of differential teacher treatment were measured in the fall, and student self-expectations were measured in the spring. Reading achievement was measured at the beginning and end of the year so that beginning ability could be statistically controlled. The results indicated that differentiated treatment had a significant effect on the academic outcome of the students in all grades, although it decreased over time. To make the point, the authors note that for children in first and third grades, a 1 standard deviation shift in teacher expectations was associated with an 8 Normal Curve Equivalent point change in ending reading achievement.

Research on the effect on teacher expectations has also been conducted on the effect of bias due to students' race or ethnicity. In a study by McKown and Weinstein (2008), teachers ranked their students on their expectations for the students' end of year

reading achievement, and their students reported on their perceptions of differential treatment. Models were then created using teacher expectations, levels of perceived differentiated treatment, student ethnicity, and prior achievement to determine the levels of teacher bias. Results supported the previous research that teachers with high biases and high levels of differentiation had higher expectations for Caucasian and Asian students. The researchers then examined how these expectations affected achievement, and found that in classrooms where teachers had higher differentiation in how they treated students based on ethnicity expectations, there was gap between students in stereotyped and non-stereotyped ethnic groups of up to .38 standard deviations between students on academic outcomes (McKown & Weinstein, 2008). The expectations a teacher has for a student, then, can influence how much that student progresses academically; this progress can be either large if there are high expectations or small if there are low expectations.

Overall, the research in teacher expectancy theory indicates that teachers treat students differently based on whether they expect them to be successful in their classroom. These expectations may be based on previous academic achievement or personal biases, and may affect individual students or whole classrooms. Students who are expected to succeed are given preferential academic and motivational support and have higher academic outcomes. Teacher expectancy theory demonstrates that teacher practices at both the individual and classroom level can affect student success; it is this second level that will next be discussed, beginning with the use of task structures to organize instruction.

### *Task Structures and Stratification*

Task structures, or the organization of academic tasks or activities (Bossert, 1977) also emerged as a construct of study during the 1970s and 1980s. Research on task structures by Rosenholtz and Simpson (1984b) culminated in the formation of *ability formation theory*. They studied classrooms to learn what structures and teacher practices helped students understand what their abilities were and how they compared to others. They found that ability perceptions became stratified in what they called *unidimensional* classrooms (Rosenholtz & Simpson, 1984a). This classroom structure has four components: undifferentiated academic task structures, where all students work on similar tasks taught with a limited number of methods and materials; low student autonomy, where students have little choice in what tasks to complete; student grouping patterns, where students work either as a whole class or in obvious and stable ability groups; and formal performance evaluations, most often as grades. They felt that peers were pivotal in children's understanding of abilities because children talk about school performance, and children take in the input of their peers. Research in this area demonstrated that children's views of their ability are affected by the type of classroom they are in (Mac Iver, 1988), and that in unidimensional classrooms, children with low abilities are more likely to have lower perceptions of their overall abilities and personality traits than in multidimensional classrooms (Rosenholtz & Simpson, 1984a). More recent research has focused away from ability formation theory and onto the educational aspects of ability grouping, which have been reported to be mostly positive due to the benefits of small group instruction (Lou, Abrami, & Spence, 2000).



As noted by the research of both Weinstein (2002) and Rubie-Davies (2010), teacher expectations can influence the actual task structures used by teachers. They both found that when teachers had lower expectations for students, students were given more direct instruction and less freedom to work in small groups or make choices over their learning. They also found that these teachers used more ability grouping, keeping higher ability children together for instruction and lower ability children together. Additionally, the ability groups were static throughout the school year. In classrooms where teachers have higher expectations, students have more choices, and any small groupings are flexible and change according to student needs.

Task structure research indicates that teachers vary in their usage of instructional methods such as direct instruction versus ability grouping, and there are variations in the flexibility of teachers when it comes to grouping students and empowering them over their learning. An important topic that was introduced in the ability formation theory research is the role of peers in the understanding of a student's academic ability. Another theory has been developed that relates to task structure research to give a new understanding of how teachers try to motivate their students to succeed.

### *Goal Structure Theory*

In the area of motivation, a theory has emerged that integrates concepts of student success, teacher practices, and peer comparison. Researchers initially were interested in how students were motivated to succeed in the classroom. They found that students have distinct *achievement goals*, or purposes for engaging in behaviors that will lead to academic success (Ames, 1992). These achievement goals were initially divided

into two categories, mastery and performance (mastery goals are occasionally referred to as learning or task goals, while performance goals are referred to as ego or ability goals, but these terms are less common) (Ames & Archer, 1988).

Students with a mastery goal orientation value learning as the means to knowledge, and engage in behaviors to maximize their learning. These students evaluate themselves through their self-improvement and mastery of course material. Students with a performance goal orientation, in contrast, are focused on demonstrating their ability relative to others, and engage in behaviors to maximize their performance on measures of evaluation. These behaviors may not relate to long term retention of material, and often will involve as little effort as possible (Ames, 1984). As researchers learned more about goal orientations, they discovered that performance orientation actually had two components. The orientation described above was renamed *performance-approach* orientation, while the opposing side was named *performance-avoid* (Middleton & Midgley, 1997). Students in this latter group are focused on not appearing inferior to their peers, and engage in behaviors that will minimize any opportunity for looking incapable or less intelligent. They evaluate their success by whether they avoid failure, particular in front of others. Research has indicated that lower-performing students are more likely to adopt this orientation than average students (Bouffard & Couture, 2003).

Motivation researchers developed goal orientation theory in the early 1980s (Ames & Archer, 1988), and then began to study the effect these processes have on students' motivation, adaptive classroom behaviors, and academic outcomes. Mastery

goals have been consistently found to lead to positive adaptive behaviors and positive outcomes; these include requesting help when needed (Butler, 1995), school engagement (Gonida, Voulala, & Kiosseoglou, 2009), intrinsic motivation (Heyman & Dweck, 1992), and effective strategy use (Miller, Behrens, & Greene, 1993). Conversely, performance-avoid goals consistently lead to maladaptive behaviors and poor outcomes. The effect of performance-approach goals are sometimes reported as at least somewhat positive (Gonida, et al., 2009; Heyman & Dweck, 1992) while other times are reported as being negative (Butler & Neuman, 1995; Miller, et al., 1993); their effects seem to vary based on the student and the context (Midgley, Kaplan, & Middleton, 2001) .

From this body of research, researchers began to investigate the factors that influenced students to adopt their personal goal orientations. They studied schools and classrooms and identified mechanisms within these contexts that might influence how students created achievement goals. In the late 1980s, evidence emerged that teachers had their own goals for their students, and that they engaged in behaviors that reflected these goals just as students did. This became known as *goal structure theory* (Ames, 1992), reflecting the concept that teachers set up and manage their classrooms in a way that reflects their goal orientation. Teachers' goal structures are divided into the same two categories that are seen in individual goal orientations, *mastery goal structure* and *performance goal structure*. While in individual goal orientations performance goal structure is divided into approach and avoid orientations, in literature on classroom goal structures this distinction is not made.

In a classroom with a mastery goal structure, teachers emphasize the process of gaining knowledge and improving. Teachers implement this structure by giving choices of what tasks to perform and matching assignments to students' needs and ability levels. They also give regular feedback on student progress and focus on progress, not just on grades. In a classroom with a performance goal structure, teachers emphasize grades and social comparison. Teachers implement this structure by giving students information on how they compare to each other through means such as displaying the best work in the classroom, giving special privileges to certain students, openly praising students, and pointing out specific students to be models for others.

Research on the effects of classroom goal structure has focused on the influence on individual student outcomes. The vast majority of studies have focused on middle school students and older, based on the theory that the amount of social comparison is higher at the secondary level than the elementary level (Middleton, Kaplan, & Midgley, 2004). Besides being studied directly, its effects are also often studied through individual goal orientations; many theorists argue that classroom goal structure does not directly lead to student outcomes, but works by shaping a student's own goal orientation (Roeser, Midgley, & Urdan, 1996). Wolters (2004) found that students with a mastery goal orientation will become stronger in that orientation if they are in a classroom with a mastery goal structure; likewise, students with a performance-approach goal orientation will become stronger in their orientation if they are in a classroom with a performance goal structure. A student with a performance-avoid orientation will become stronger in that orientation if placed in a performance goal structure classroom. Wolters (2004) also

found that students' orientations weakened when placed in a classroom that was opposite their orientation. Urdan (2004) found similar results, with the exception that most students in his study had adopted the same orientation as the classroom they were in, reporting a mastery orientation in a classroom with a mastery goal structure and either performance-approach or performance-avoid goal orientations in a classroom with a performance goal structure.

The ultimate effects of goal structure on student outcomes, whether studied through the mediating effects of individual goal orientation or through direct effects, have been demonstrated for secondary students, particularly in academic, emotional and behavioral areas. Students who report being in mastery goal structure classrooms feel high levels of school belonging (Anderman, 1999; Gonida, et al., 2009), are engaged in school (Gonida, et al., 2009), and are motivated to succeed (Lau & Nie, 2008; Murayama & Elliot, 2009). They use quality learning strategies (Kaplan & Midgley, 1997), perceive themselves as competent in academic subjects (Anderman, Maehr, & Midgley, 1999), and value the subjects they are learning (Anderman et al., 2001). They also have positive social goals (Anderman & Anderman, 1999) and positive psychological outcomes (Roeser et al., 1996). Students who report being in performance goal structure classrooms do not possess most of the adaptive qualities found by students in mastery classrooms. In addition, they exhibit maladaptive qualities such as being more likely to cheat (Murdock, Miller, & Goetzinger, 2007), engaging in self-handicapping and avoidance behaviors (Turner et al., 2002), and disrupting class (Kaplan, Gheen, & Midgley, 2002). While there is a general consensus that mastery

goal structure is preferred over performance goal structure, the ultimate question over whether mastery goal structure leads to better academic outcomes is sometimes debated, because both mastery and performance goal structures lead to increased academic achievement, except for students with a performance-avoid orientation who are in a performance-structured classroom (Lau & Nie, 2008). When individual goal orientation is measured as a mediator, outcomes in performance goal structure classroom are generally poorer for students with performance-avoid orientations (Urduan & Midgley, 2001). For example, studies on help-seeking behavior have sometimes indicated that all performance-oriented students avoid asking for help, while others have only found it is a concern only in performance-avoid students (Lau & Nie, 2008). Because of the negative effects on students, however, mastery goal structure is considered to be adaptive for students while performance goal structure is on the whole to be maladaptive.

#### *Social Comparison Theory*

The research conducted through teacher expectancy theory, task structures, and goal structure theory can be better understood through social comparison processes. Social comparison theory was first established by Festinger (1954), who determined that people evaluate their own abilities by comparing themselves to others. They are more likely to make this comparison with people or groups who are similar to themselves, so that they can more accurately estimate their abilities. Festinger's theory was expanded, and other researchers concluded that the goal of social comparison was not solely to evaluate ability levels, but to improve or protect self-esteem, and current definitions of

social comparison generally acknowledge that comparison of abilities to others may have multiple motives (Dijkstra, Kuyper, van der Werf, Buunk, & van der Zee, 2008).

Studies of social comparison in the classroom emerged in the same time frame as the previously discussed theories; classrooms were considered a prime setting to study the process of social comparison in children and adolescents because of the practices used in schools and the proximity of peers (Pepitone, 1972). Early studies of social comparison were primarily experimental in design, setting up tasks to elicit comparison situations within the classroom, while more recent research has focused on questionnaires to understand student motivations and outcomes (Dijkstra et al., 2008).

A recent meta-analysis (Dijkstra et al., 2008) has synthesized the research on social comparison in the classroom since the first study in 1969. The authors divided this research into four subtopics- motivations, dimensions, directions, and consequences. As previously stated, current views of social comparison indicate that there are multiple reasons that a person would compare themselves to others. Research with children indicates that children use social comparison cues to judge their abilities as young as age four (Butler, 1998; Pomerantz, Ruble, Frey, & Greulich, 1995). As children get older, they move from using comparison as a gauge of their ability and improving themselves; it becomes a vehicle for competition and self-esteem building or preservation (Pomerantz et al., 1995). The literature reaches a general consensus that children begin to change from a more mastery-oriented, self evaluation driven motivation of comparison to a performance-oriented, self-esteem driven motivation at age seven, or second grade (Dijkstra et al., 2008).

The dimensions of social comparison refer to the aspects of others that make a child more likely to compare themselves with those other people. Festinger's theory stated that people prefer to compare themselves to those who are similar; research since then has examined which attributes make the most difference. For children, attributes of peers that make them preferable for social comparison include being similar in age (Blanton, Gibbons, Buunk, & Kuyper, 1999), sex (Golden & Cherry, 1982), socioeconomic status (Regner & Monteil, 2007), and ethnicity (Meisel & Blumberg, 1990).

The directions of social comparison refer to whether children prefer to compare themselves with classmates who have the same ability, higher ability, or lower ability. Festinger (1954) stated in his theory that people would select those with slightly higher ability. This view was supported by the studies in the meta-analysis, particularly when the more successful child is very similar to them (Dijkstra et al., 2008). Schunk (1987) explains this phenomenon by theorizing that children feel more confident in their own abilities when they see a peer who is like them having an increased level of success.

The consequences of social comparison have been studied extensively in many domains. In the affective domain, increased social comparison behaviors have been found by numerous researchers to lead to increased anxiety (Dijkstra et al., 2008); Butler (1998) found that this increased with age at the elementary level. In the cognitive domain, there is contrasting evidence over whether social comparison is harmful or helpful to a student's academic self-concept; the effect seems to vary depending on the direction that the comparison is being done. Another consequence of social comparison



is the big-fish-little-pond effect (BFLPE), which states that equally able students will have a different view of their abilities depending on the average ability of the other students around them (Huguet et al., 2009). In the behavioral domain, social comparison has a positive effect on academic performance when the comparison is with a higher performing classmate who the student can model behavior after or aspire to resemble (Blanton et al., 1999). When comparison is more universal, however, such as in BFLPE research, social comparison leads to poorer academic self-concept and performance when the student is below average academically when compared to his or her peer group (Marsh, Trautwein, Ludtke, & Koller, 2008).

### **Conclusions and Future Directions**

Teachers have views of their students' academic abilities, how they should be taught, and what the goals of learning should be. Teacher expectancy, task structures, and classroom goal structure are all theories that explain how these views lead to specific practices in the classroom. These practices may increase student awareness of their peers' academic abilities. Each theory relates to social comparison theory because in these classrooms mechanisms are provided by which student can compare their own and classmates' abilities. In each body of research, these social comparison practices have been found to have negative effects on children who are average and who are low-achieving. For many children, membership in classrooms that cause them to be visibly compared to their peers can hurt their motivation (Lau & Nie, 2008), academic self-concept (Anderman et al., 1999), and other variables critical to school success. The practices can also increase anxiety and cause negative psychological and behavioral

changes. Most importantly, social comparison practices are capable of negatively affecting their overall academic success (Kuklinski & Weinstein, 2001; Marsh, et al., 2008). These effects are a particular concern for students who are low-achieving because they are more likely to be treated differently by teachers with low expectations for their academic success (Kuklinski & Weinstein, 2001) and may have less adaptive goal orientations (Bouffard & Couture, 2003).

There /are two areas within these social comparison theories that have yet to be explored in depth. First, there is a limited understanding of why teachers select or engage in social comparison practices. Second, there is a lack of research in how social comparison practices affect the social relationships of students. By studying these topics, the full effects of these practices on at-risk students can be better understood, and quality classrooms can be created that help all students succeed.

### **Purpose: Study 1**

The first study sought to understand the reasons teachers engage in social comparison practices. In some cases, such as teacher expectancy theory where a teacher is judging individual students and treating them based on these expectations, the answer is reasonably straightforward. In whole class situations, the answers are much less clear. In most of the theories presented the researchers do not attempt to explain why teachers engage in certain behaviors or practices, but instead simply study the outcomes. It is not clear why a teacher would have low expectations for a whole class, use direct instruction and static ability groups, or use performance goal practices over mastery goal practices.

It is unlikely that teachers choose practices with a theory in mind, but rather implement practices that they believe will lead to student success.

The first study examined factors that were theorized to impact the use of performance goal practices by elementary school teachers. These comparison-focused practices have existed in schools for decades, but research demonstrates they do not lead to positive outcomes, particularly for low achieving students. It was theorized, then, that teachers who use these practices either have a small tool bag of teaching methods to choose from, or are not at a level of mastery where they can put the effort into their job to seek out preferred strategies. From this, it was hypothesized that elements of teacher stress contributed to the use of performance goal practices in elementary school classrooms. Three elements of teacher stress were measured that were believed to predict the use of performance goal practices- teacher-reported stress, classroom aggression, and years of teaching experience. Multiple regression analyses were then used to determine whether these variables contributed to the use of performance goal practices in elementary classrooms, and whether they had the same relationship in lower and upper elementary grades.

### **Purpose: Study 2**

The second study sought to understand the impact teacher practices have on social relationships. This is an area of research within this topic that is still mostly unexplored. The previously discussed theories all examine a social construct, yet the research on student outcomes has almost exclusively focused on individual variables. It has been shown, for example, that children with low academic ability are less accepted

by their peers (Estell, Farmer, Cairns, & Cairns, 2002; Hughes & Zhang, 2007).

Teachers who use social comparison practices are providing information to their students about each other's abilities that may affect this relationship.

The second study examined the effect of performance goal practices on the relationship between academic ability and peer acceptance in elementary school classrooms. It was hypothesized that in classrooms where teachers used a greater number of these practices, there would be a stronger relationship between academic achievement and peer acceptance. The expected moderating effect of performance goal practices was tested through hierarchical linear modeling.

CHAPTER II  
ASPECTS OF TEACHER STRESS AND BURNOUT AND THE USE OF  
PERFORMANCE GOAL PRACTICES IN THE ELEMENTARY SCHOOL  
CLASSROOM

**Introduction**

Teachers are given many tasks in a single day in order to help their students become successful learners. They must create a classroom environment where students are able to learn and are actively engaged. Teaching students not only involves successful instruction of the curriculum, but also the ability to manage the students and control any possible behavior problems, and keep the students engaged and interested in learning. A great deal of research in educational psychology attempts to identify teacher practices that accomplish these goals. A field of motivational research, called achievement goal theory, aims to explain the connections between specific teacher practices and students' academic motivation and achievement.

*Achievement Goal Theory*

Students in a classroom do not have the same goals or use the same strategies when learning new material. *Achievement goals* have been identified as purposes for engaging in learning behaviors; students are considered as having a specific goal orientation based on their overall purpose for learning (Ames, 1992). These personal achievement goal orientations were initially divided into two categories, mastery and performance; a performance goal orientation was later found to have two separate

components, leading to the current categorization of achievement goals as *mastery* (or *mastery-approach*), *performance-approach*, and *performance-avoid* (Ames, 1992). A student with a mastery-approach goal orientation learns for learning's sake, to master new material and build new knowledge and skills. This student judges success by self-improvement. A student with a performance-approach goal orientation learns in order to outperform his or her peers. This student judges success by demonstrating ability at a higher level than others. A student with a performance-avoid goal orientation learns in order to avoid failing in front of his or her peers. This student judges success by not looking incapable or unintelligent in front of others. Research into the effect of these personal goal orientations indicates that mastery-approach goal orientations lead to many positive academic and behavioral outcomes (Butler, 1995; Heyman & Dweck, 1992; Miller et al., 1993), performance-avoid goal orientations lead to many negative academic and behavioral outcomes, and performance-approach goal orientations can have either positive or negative effects, often depending on the student and the context (Midgley et al., 2001).

Evolving from achievement goal theory, *classroom goal structure theory* explains the role of teacher practices in students' adoption of personal goal orientations and other school outcomes. *Classroom goal structures* are created through teacher practices that reflect the teachers' own goal orientations and their goals for their students (Ames, 1992). As in achievement goal theory, classroom goal structure theory divides these practices into mastery and performance orientations, but excludes the approach and avoid distinctions. In a classroom with a mastery goal structure, the teacher emphasizes

the importance of learning new material or skills and personal growth. The teacher emphasizes improvement over grades, through methods such as progress monitoring. These teachers also give students choices on tasks, such as letting them write a story or draw a picture to demonstrate knowledge. They also tailor their lessons and activities to reflect the interests, needs, and ability levels of their students. Conversely, in a classroom with a performance goal structure, the teacher emphasizes performance relative to a standard and ability as compared to other students. These teachers emphasize grades as a measure of success or failure. They recognize high achieving students through both verbal praise and tangible rewards. They ensure that all students know their achievement ranking in the classroom through visible displays such as bulletin boards that highlight the best assignments or follow competitions for such classroom activities as independent reading or learning math facts.

Research on the impact of classroom goal structures has focused on students' individual characteristics, such as emotional, behavioral, and academic outcomes. Mastery goal structures are associated with positive outcomes in children. Middle school students in mastery-oriented classrooms are more likely to have a positive affect at school and positive coping skills (Kaplan & Midgley, 1999). Additionally, students transitioning from elementary school to middle school have an increased positive affect if their middle school teachers have a mastery goal orientation than if they have a performance goal orientation (Anderman, 1999). Upper elementary students are less likely to withdraw their effort from their work and are academically engaged in mastery goal structured classrooms (Lau & Nie, 2008). Mastery goal oriented classrooms also

are related to middle school students' academic self-efficacy and a feeling of school belonging (Roeser et al., 1996).

Research on teacher practices leading to performance goal structures, however, has resulted in more inconsistent outcomes. In some studies, the positive relationships seen in mastery-oriented classrooms are shown to be negative relationships in performance-oriented classrooms. Middle school students in performance-oriented classrooms report higher self-efficacy than do students in mastery-oriented classrooms; additionally, they demonstrate higher academic self-consciousness, showing concern with how they were viewed by their peers during school tasks (Roeser et al., 1996). Students in classrooms characterized by higher performance goal practices are also more likely to be disengaged in classroom activities, relative to students in classrooms that emphasize mastery goals (Lau & Nie, 2008). There is not always a relationship between goal structures and student outcomes. For example, in the two studies that demonstrated that students whose teachers used mastery goal structures had, on average, a positive affect toward school, the students in other classrooms did not necessarily have a negative affect. Students who viewed school positively in the previous school year, and who had high status goals at school (i.e. the desire to conform and be popular) tended to be buffered from this effect (Anderman, 1999). The other study (Kaplan & Midgley, 1999) found that there was no relationship between students who reported high use of performance goal practices in their classes and their affect toward school, even though students who had mastery-oriented classes tended to have a positive affect toward school. An important factor to consider is that the association between classroom goal structure



and student outcomes are often mediated by the student's personal goal orientation. A student who already has a performance-approach orientation may do well in a classroom that emphasizes comparison and competition, but students who have a performance-avoid orientation and are afraid of failing in front of their peers may respond poorly to a classroom performance goal structure by having decreased motivation and decreased grades (Urduan & Midgley, 2003).

#### *Teacher Use of Classroom Goal Structures*

While the research has focused on the effects of mastery and performance goal structures on students, few studies have examined influences on teacher selection of performance versus mastery goal practices. Two related studies have shed some light on this teacher practice. Wolters and Dougherty (2007) first investigated the link between the use of mastery and performance goal structures and three areas of teacher self-efficacy, or ratings about their confidence in their teaching ability. Teachers who reported confidence in teaching (self-efficacy for instruction) were more likely to use mastery goal structures than were less confident teachers. Teachers with higher confidence in keeping students interested in learning (self-efficacy for engagement) were more likely to use both mastery and performance goal practices. This supports the notion that classroom goal practices are rooted in the need to motivate learners. Confidence in controlling student behavior (self-efficacy for management) was not related to a preference for either goal practice, indicating that teachers may rely on varying practices when managing behavior, and that goal structures are not seen primarily as a management tool. Additionally, the researchers examined the connection

between self-efficacy and years of experience and found that novice teachers rated themselves lower in academic and management self-efficacy than more experienced teachers. Teaching experience was evaluated alone, there was no difference between novice and experienced teachers in the use of either mastery or performance goal structures.

In a follow-up study with the same sample, Wolters, Fan, and Dougherty (2011) expanded their research by investigating the relationships between teacher and classrooms characteristics and the use of goal structures in a survey of teachers in grades K-12. Their study confirmed that high school teachers were more likely to use performance goal structures than elementary school teachers, while elementary school teachers were more likely to use mastery goal structures than high school teachers. It is theorized that these differences exist because of the structures of primary versus secondary schools. In elementary schools, teachers are able to interact more with their students and build the structures for a mastery-oriented classroom, such as individualizing instruction and discussing students' personal growth, while in secondary schools there is increased pressure to meet standards, and students may be less interested in learning and therefore harder to motivate. Walters et al also confirmed that in their sample teachers' years of experience in the classroom did not affect their use of particular goal practices.

Another study (Retelsdorf, Butler, Streblow, & Schiefele, 2009) studied a new construct that evaluated the use of classroom goal structures. It has been proposed that, like their students, teachers have their own approaches to their work (Butler, 2007).

Using similar vocabulary as previous goal orientation research, teacher goal orientations consist of *mastery*, or the desire to become a strong teacher; *ability-approach*, or the desire to be a better teacher than others; *ability-avoid*, or the desire to not show inferiority to others; and *work-avoid*, or the desire to get through each workday with little effort. Teachers of all grade levels were surveyed to determine both their personal teaching orientation as well as their use of classroom goal practices. Analyses indicated that teacher ability-approach and teacher ability-avoid orientations were unrelated to the use of particular goal practices. Results indicated that a teacher with a mastery orientation to teaching, who is focused on becoming a strong teacher, is likely to use mastery goal practices in the classroom. A teacher with a work-avoid orientation, who does not want to put effort into teaching, is likely to use performance goal practices.

Burnout was also included on the teacher survey to examine its role as a mediator between teacher goal orientation and their use of classroom goal practices. Teachers with a mastery orientation reported low burnout, while teachers with a work-avoid orientation reported high burnout. Teachers who enjoy their jobs and strive to do well use strong practices that support learning, while teachers who do not put effort into their job and are burned out use practices that have been shown to negatively affect students. The authors make this conclusion, “Teachers who strive to minimize effort might be particularly likely to endorse performance-oriented practices because such practices represent a fairly easy way to manage students.”

The current studies on teacher influences on goal practices give some groundwork for understanding the processes that are involved in motivating students.

The work by Wolters and colleagues demonstrates that mastery goal practices are more likely to be used in elementary classrooms than in secondary classrooms, and by teachers who feel confident in their abilities to teach and engage students. It also raises questions about the role of experience. While their sample did not show years of experience to directly impact the use of a particular goal structure, they did highlight the lack of confidence that can be seen in novice teachers. While self-efficacy is clearly one factor affecting novice teachers' classroom behaviors, there are many factors that influence their job performance as they learn this demanding profession. It is important to take another look at this variable with a new sample- the Wolters sample was self-selected, and came from a suburban school district, and may not generalize as well as a more diverse sample.

Retelsdorf and colleagues add another possible teacher influence to the research- the role of burnout and teacher stress. This concept is a particular concern in modern day education, where teachers feel the stress of standardized tests and high expectations and often leave the profession at a high rate (Wilhelm, Dewhurst-Savellis, & Parker, 2000). This study looked at burnout through the construct of teachers' personal orientations to teaching, but although this is a helpful perspective it leaves more questions about the direct role of stress on teachers and their classroom practices. What elements of teaching are stressful, what leads a teacher to burn out, and how does this affect their instructional interactions in the classroom? Teacher stress, the resulting burnout, and the role of teacher experience all are important variables for further investigation in the study of classroom goal structures.

### *Teacher Stress and Burnout*

Many factors can impact a teacher's likelihood to become stressed or burned out. There are countless models and studies published on the causes of teacher stress and teacher burnout; this lack of a unifying theory has been criticized as a flaw in the body of work on this topic (Guglielmi, 2001). Of those that have been proposed, one of the most commonly referenced models was put forth by Boyle in the 1990s (Boyle, Borg, Falzon, & Baglioni, 1995). In this model, workload, student misbehavior, professional recognition, classroom resources, and poor colleague relations are the most significant stressors on teachers. Of these, workload and student misbehavior have the strongest impact on teacher stress. From this research, an instrument was created called the Teacher Stress Inventory, a 20-item survey of the five factors; this instrument is still used in many studies today (Clunies-Ross, Little, & Kienhuis, 2008; Klassen & Chui, 2010).

Supporting this, a specific examination of the elements of student behavior that contribute to teacher burnout was conducted with elementary school teachers (Hastings & Bham, 1993). The questionnaire used focused on three elements of student behavior, two positive and one negative, and three elements of teacher burnout- emotional exhaustion, depersonalization, and personal accomplishment. Regression results showed that student disrespect and additional responsibilities led to emotional exhaustion, student disrespect and a lack of student sociability led to depersonalization, and a lack of student sociability led to a decrease in personal accomplishment. This supports the

concept that students and their behavior problems can have a strong impact on the stress and burnout faced by teachers.

While there is information on what causes teachers to become stressed, there is less knowledge about which teachers are more likely to feel stress. It has been indicated that teachers in elementary grades are more likely to feel the stress of the events in their classroom than teachers of secondary grades (Malik, Mueller, & Meinke, 1991). Personal factors, such as coping ability, personality, emotional responses to stress, and personal support also play a major role in whether a teacher becomes stressed out at work (Montgomery & Rupp, 2005). Teachers with low self-efficacy in the area of classroom management are also more likely to be stressed out (Klassen & Chui, 2010).

Stress has been demonstrated to be related to teacher classroom practices. Elementary teachers were surveyed on their stress levels, student behavior, and classroom managements (Clunies-Ross, Little, & Kienhuis, 2008). In this study, teachers who reported higher levels of stress were more likely to use reactive classroom management strategies, such as rewards and punishments, as opposed to proactive strategies that are viewed as best practice, such as setting up systems of rules and procedures and using praise. Behaviors that were seen as the most bothersome included talking out of turn, hindering other students' learning, and physical aggression (particularly in male students). A study of kindergarten classrooms (Mantzicopolous, 2005) revealed similar behaviors. Teachers working with economically disadvantaged children were surveyed on their stress levels, the relationships with their students, and their use of activities to aid in the kindergarten transition, while observers determined

the quality of their teaching practices. Teachers who reported higher stress levels were less likely to have implemented proactive teaching practices that would aid students in the transition to school, and consequently reported higher levels of conflict in their classroom. These two studies indicate that higher stress levels in teachers leads to weaker, or less positive, classroom management strategies. The work of running a classroom is complex, and it is not a surprise that stress would affect teaching performance. The idea of stress having an impact on complex work has been studied since the 1950s, when researchers studied the impact of stress and anxiety on complex intelligence tasks (Dunn, 1967). Since then, research has expanded to understand the role of stress in various work environments such as aviation, where pilots are impaired in their ability to fly an aircraft if they are under stress, and are consequently more likely to be in an accident (McClerndon, McCauley, O'Connor, & Warm, 2011). Similarly, it is likely that teachers who are under stress are less likely to balance the many complex tasks of instruction and classroom management needed to run a successful classroom.

#### *Novice Teachers, Stress, and Classroom Practices*

Specific concerns about teacher stress can be seen with novice teachers. As previously noted, teachers who are new to the profession are lacking in confidence in many areas (Wolters & Daughtery, 2007). Overall self-efficacy is lowest in the first year of teaching (Klassen & Chui, 2010), and while it declines as teachers near retirement it never reaches those beginning levels.

Novice teachers have many specific concerns about teaching. When interviewed about their stressors (Rieg, Paquette, & Chen, 2007), first and second year teachers

discussed working with parents, standardized test pressure, and classroom management. In another qualitative study on the experience of first year teachers, Olsen and Osborne (1991) identified a series of 10 stages that novice teachers go through as they learn their role and seek to form an identity. Throughout these stages, teachers reported feelings of anxiety, guilt, and insecurity, and said they used “trial and error” as they learn how to become effective teachers.

A larger study examined the stress levels of first-year teachers (Gavish & Friedman, 2010). Teachers reported high levels of burnout even at the beginning of the school year, and these levels remained constant all year. Of the three areas of burnout, the one that was highest among novice teachers was personal accomplishment, indicating lack of personal fulfillment and a feeling of failure at the profession. The role of the school organization was examined and found to significantly contribute to teacher burnout, particularly when the teacher is not appreciated or given recognition by his or her students, and when there is not a collaborative and supportive school culture. This study demonstrates two factors- that the job of being a new teacher is immediately stressful, and that the school plays a significant role in how stressful that job can be.

While it is well understood that the first years of teaching are stressful, specific issues concerning novice teachers and their teaching practices are not widely researched; there is a wealth of information on preservice teachers, but they do not have the full responsibility of a fully employed teacher. A positive trait of novice teachers is their openness; they are willing to try new and innovative teaching strategies that they might learn in trainings or workshops (Ghaith & Yaghi, 1997). On the other hand, their skills



are still growing and can be limited. Compared to more experienced teachers, novice teachers communicate less with their students and are less flexible in their management and leadership (O'Connor, Fish, Yasek, 2004).

A stage theory of beginning teaching has been established which may explain the selection of classroom practices. It began as a three-stage model developed by Frances Fuller (1969) which came out of her Stages of Concern. In her research, Fuller saw that novice teachers were first concerned with themselves and their own needs, then later with the task of teaching, and ultimately with impacting their students. Two decades later, Kevin Ryan modified Fuller's model into the stages of fantasy, survival (which equates to Fuller's first stage), and impact (Ryan, 1986). This new first level, fantasy, reflects the naiveté of preservice teachers as they image their classroom and the type of teacher they hope to be; the first year teacher actually starts out in the survival phase. The stage theory has been further developed by teacher educator Harry Wong, who has established a four stage model- fantasy, survival, mastery, and impact (Wong & Wong, 2009). In each model, the survival stage is the one in which inferior teaching practices are most likely to be used. Teachers who are unsure of themselves and their skills, and who are just trying to get through a day, are likely to use practices that are easy to implement or are familiar. Wong further says that "student learning and achievement are not their goals; they teach because it's a job and a paycheck is their Survival goal" (Wong, 2009).

### *Limitations of Current Research*

While classroom goal structure theory has been studied extensively, there is still little understanding of what causes a teacher to engage in particular goal practices. The previous studies indicate connections between use of a goal structure and a teacher's grade level of instruction, burnout level, and self-efficacy. There are also overall indications that the stress and burnout levels of teachers, including student behavior problems, play a role in how they run their classroom, which may likely include their selection of goal structure.

The relationship between classroom practices and years of experience is less clear; while it was not shown to be a significant predictor of goal structure usage with one sample, it is related to both teacher stress and low self-efficacy, which affect classroom practices. Additional research and knowledge on novice teachers indicates concerns about use of effective teaching practices. It is therefore a topic that still needs further study.

### *Purpose of Study*

The purpose of this study is to investigate the relationship between indicators of teacher stress and teachers use of performance classroom goal structures. Indicators of teacher stress include not only teachers' subjective reports of burnout but also a measure of the number of the aggressive students in the classroom. Previous research has documented the role of classroom behavior problems on teachers' stress, as well as on teacher use of performance goal practices. In addition, the association between teachers' years of experience and goal practices will be investigated. It is expected that teachers

who feel more stress, have more aggressive students, and have less years of experience will rate themselves as using higher levels of performance goal practices. This study will also explore how this relationship operates in upper and low elementary grades. Performance goal practices in general increase throughout the elementary grades (Hughes, Wu, & West, 2011), likely due to the changing focus on standardized tests and accountability in upper elementary grades. This added pressure could have an added impact on the relationships between the predictor variables and teachers' classroom practices.

## **Methods**

### *Participants*

The teachers included in this study were selected on the basis of having at least one student enrolled in their classrooms who was participating in a longitudinal study and teaching a regular education classroom. The children in the longitudinal study were 784 students that were recruited as two sequential cohorts, in fall 2001 and fall 2002, from one of three public school districts in Texas (1 urban and 2 small city). A total of 784 students were recruited into the larger study if they scored below the median on a state approved district administered measure of literacy administered during first grade. Teacher information was used from years 2 and 4 of the study, when the majority of students were in second and fourth grade. Teachers were included in the study if they had data on all variables in the study; this resulted in 461 participants. Information on the teachers of these classrooms is given in Table 1.

Table 1.  
*Teacher demographic information*

	Participants
	N=461
Percent Female	95.2
Percent Caucasian	83.1
Percent Teaching First Grade	15.6
Percent Teaching Second Grade	33.4
Percent Teaching Third Grade	17.6
Percent Teaching Fourth Grade	33.0
Percent with Post-Bachelors Education	38.2
Less than One Year of Teaching Experience	5.4
1-3 Years of Teaching Experience	19.1
4-6 Years of Teaching Experience	20.2
7-9 Years of Teaching Experience	11.3
10-12 Years of Teaching Experience	5.9
More than 12 Years of Teaching Experience	38.2

### *Measures*

Teachers were asked to complete a questionnaire for each student in their classroom who was participating in the larger longitudinal study. In addition, they were asked to complete a demographic questionnaire and measures of teacher performance goal practices and teacher stress. Questionnaires were mailed to teachers in the spring

with a pre-addressed return envelope. Teachers received compensation for completing and returning the questionnaires.

Teachers rated their use of practices involving social comparison using the Patterns of Adaptive Learning Scale, or PALS (Midgley et al., 2000), the most commonly used measure of classroom goal structure (Patrick & Ryan, 2008). For this study the five-item section on performance goal orientation was used. The items are answered on a five-point Likert scale and are shown below.

1. I give special privileges to students who do the best work.
2. I display the work of the highest achieving students as an example.
3. I help students understand how their performance compares to others.
4. I encourage students to compete with each other.
5. I point out those students who do well as a model for the other students.

The overall PALS measure has been shown to have adequate internal consistency reliability and validity (Midgley, et al., 2000), though these studies were focused on the student measures. Scores from the teacher measure have shown to have construct validity through their prediction of student use of self-handicapping strategies (Urdan et al, 1998), student disruptive behaviors (Kaplan et al, 2002), and student reports of performance goal structures (Kaplan et al, 2002), and student behavioral engagement (Hughes, Wu, & West, 2011) . For this study the reliabilities were calculated as coefficient alphas and ranged from .729 to .738.

Individual interviews were conducted in spring of each school year. Each participant was asked to nominate students who demonstrated certain traits in the

classroom, including aggression. Each participant was interviewed individually by a trained research assistant, and participants were assured that their answers were confidential. The aggressive descriptor asked students to name classmates who best fit the following description: “Some kids start fights, say mean things, or hit others. What kids in your class are like this?” Note that the term “aggression” was not used. Each participant was invited to name as many or as few of their classmates that they felt fit the description.

For each classroom, all of the nominations were summed, and then divided by the number of students who provided nominations. This gave a normative level of classroom aggression that could be compared across classrooms of different sizes and different participation rates.

Teachers reported their years of teaching experience on a demographic survey. They were given choices in ranges of less than a year, 1-3 years, 4-6 years, 7-9 years, 10-12 years, and more than 12 years. The distribution of responses is given in Table 1.

Teacher stress was assessed by a single question on the teacher demographic form: “How many students in your class drain your energy?” This question could indicate students who the teacher perceives as needing extra energy to work with due to behavioral, academic, or other concerns. This construct is similar to the emotional exhaustion element of teacher burnout seen in Hastings and Bham’s study (1993), which has previously been connected to difficulties with student misbehavior. The number given by each teacher was converted to a percentage of the total number of students in

the classroom. Teachers who report a higher percentage of students who drain their energy are considered to experience more classroom stress.

### *Data Analysis*

To determine whether the variables teacher stress, normative classroom aggression, and years of experience were related to teacher-reported performance goal practices, regression analyses were performed in SPSS 18. Correlations were calculated between each predictor and variable and performance goal practices. Next, multiple regression was used to determine whether grade level had an impact on the relationship between each predictor variable and the outcome variable. Finally, the predictor variables were entered subsequently into a multiple regression analysis to determine each variable's unique contribution to teacher use of performance goal practices.

## **Results**

### *Correlations*

The three predictor variables proved to be significantly but modestly related to each other, in the expected direction. As expected, the percentage of teachers who reported a higher level of stress was positively correlated with the student-reported classroom aggression ( $r=.20$ ,  $p < .001$ ). Teachers with fewer years of experience reported a higher level of teacher stress ( $r=-.093$ ,  $p < .01$ ). The relationship between years of experience and number of student-reported aggressive children in the classroom was not significant.

Two of the three predictor variables were found to be significantly correlated with teacher-reported use of performance goal practices. Teacher-reported stress was

positively correlated with the use of performance goal practices ( $r=.130$ ,  $p < .01$ ), while years of experience was negatively correlated with the use of performance goal practices ( $r=-.227$ ,  $p < .001$ ). All correlations are reported in Table 2.

Table 2.  
*Zero-order bivariate correlations among indices of teacher stress*

	1	2	3	4
Teacher Reported Stress		.20**	-.093*	.130**
Classroom Aggression			-.041	.074
Teacher Years of Experience				-.227**
Performance Goal Practices				

\*= $p < .05$  \*\*= $p < .01$

### *Multiple Regression Analyses*

As predicted, the levels of teacher-reported performance goal practices increased with each grade level, ranging from a mean of 2.25 in first grade to 2.54 in fourth grade. Full descriptive information can be found in Table 3. Regression analyses show that grade level is a significant predictor of the use of performance goal practices ( $\beta=.134$ ,  $p=.004$ ).

To determine whether any the relationships between the predictor variables and performance goal practices were impacted by the grade level taught, interaction effects were examined through multiple regression. Each predictor variable was entered into the regression analysis along with grade level and the interaction term for the variable



and grade level. In every instance the interaction was not significant, demonstrating that grade level has no effect on the relationships. It was therefore not included in the final analysis.

Table 3.  
*Grade level descriptors of teacher-reported performance goal practices*

	Participants	Mean	SD
First Grade	72	2.253	.749
Second Grade	154	2.364	.758
Third Grade	82	2.418	.820
Fourth Grade	152	2.543	.773

Finally, the predictor variables years of teaching experience, teacher stress, and classroom aggression were entered simultaneously into the multiple regression analysis to determine their joint contribution to teacher-reported goal practices. Overall, the three predictors explained 7% of the use of performance goal practices. Full results are given in Table 4. The number of years of teaching experience contributed significantly to the use of performance goal practices ( $\beta = -.215$ ,  $p < .001$ ). Teacher stress also had a significant effect on the use of performance goal practices ( $\beta = .101$ ,  $p < .05$ ). The student-reported percentage of aggressive students in the classroom did not have a significant effect on the use of performance goal practices.

Table 4.  
*Teacher performance goal practices regressed on indices of stress*

	B	SE B	$\beta$	Model R2
Classroom Aggression	.701	.720	.045	
Teacher Stress	.477*	.220*	.101*	
Years of Experience	-.096***	.020***	-.215***	
				.065***

\*  $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$

## Discussion

### *Teacher Stress*

The results of the current study demonstrate that variables related to teacher stress play a significant role in teachers' use of performance goal practices. This is most directly seen in the teacher report of the number of children that drain the teacher's energy, a variable that may encompass classroom conditions that cause stress such as academically or behaviorally challenging students as well as a teacher's overall level of exhaustion, burnout, and job dissatisfaction. If a teacher reported a high number of students as draining, they were more likely to use comparison and competition in the classroom.

These results are consistent with expectations that teacher stress would impact teacher practices. These teachers, who are drained and frustrated by their students and their jobs, are using practices that they hope will cause a change in their situation. They may also be doing these practices simply because they are the easiest to implement, or

seem easier than individualizing instruction the way mastery goal structure would require.

The highly stressed teacher may be similar to the profile of the "surviving" novice teacher mentioned in Wong's stage theory. These teachers may doubt their skills, and are likely just trying to get through each day. They are reverting to old habits, or possibly haven't learned better practices because they have continued to be overwhelmed and have never left the survival stage. Even though they may have been exposed to new methods through professional development, observation, or other experiences, they are not able to change, or because of their stress are simply not motivated or capable of using these practices.

#### *Teacher Experience*

As predicted, teachers with fewer years of teaching experience were more likely to use performance goal practices in the classroom. Years of experience and teacher stress were correlated, confirming that novice teachers do feel stress in their profession, but their experience level was a unique contributor to the use of goal practices.

The use of performance goal structures by less experienced teachers is likely to be influenced by their low self-efficacy. Novice teachers have been demonstrated to have low confidence in their overall performance (Klassen & Chui, 2010), as well as in their ability to teach and ability to manage their classroom (Wolters & Daughtery, 2007). Goal practices, though, are a motivational tool, and go beyond many of these constructs. Self-efficacy, while a helpful construct for understanding novice teachers, does not give the full picture.

Novice teachers enter the profession with an idealistic goal, but quickly learn the realities of education. Their stress level is elevated from the beginning as they learn to navigate the school climate, learn the curriculum, and learn to manage a classroom. If the school atmosphere is not structured in a way that is supportive of new teachers, stress can be a significant issue.

Teachers with less experience may be working from a limited toolbox. They know the practices that they have been taught by their teacher training programs and the ones that they have seen both in observing classrooms and through their own schooling. Performance goal practices involve activities that have been around for decades- posting papers on bulletin boards, rewarding high achievers, and publically tracking student progress. Many of the tenants of mastery goal structure, however, are not as common or are harder to implement, especially with the current instructional climate. While individual progress monitoring is now more commonplace with the arrival of Response to Intervention, individualizing instruction and assessment is more challenging with standards-driven curriculum and the pressure of assessment. For a new teacher who is learning how to manage the many demands of a classroom, it is logical that the teacher will implement familiar strategies to motivate students, particularly if they are easy to implement.

### *Classroom Aggression*

The final variable tested, student-reported percentage of aggressive students in the classroom, did not have a significant relationship with the use of performance goal practices. There could be many reasons for this. First, the student perception of the

classroom may not match the teacher perception. The correlation of this variable with the teacher-reported number of students who are energy-draining is .20, indicating significant but a weak relationship. Of course, these are not identical variables, with the teacher variable encompassing a wider range of child attributes than aggression. As previously stated, a “draining” child could have academic difficulties, or have behavioral issues that are not aggressive in nature (such as inattention). Even if the variables were more similar, there could be a difference between the reports based on perception—students have difficulties with a child during recess that the teacher is not aware of, for example, or a student is disrespectful toward a teacher but not toward other children.

Even if the student report is an accurate assessment of the level of aggression, it may not be enough of an effect on a teacher’s goal practices. While classroom goal practices are related to classroom management, they are more directly focused on academic performance and student motivation. It is more likely that a teacher makes other adjustments to the classroom environment when a group of students is aggressive than adjusting the level of social comparison. This is supported by Wolters and Fan (2007), who found that teachers with a high self-efficacy for management were no different in their use of classroom goal practices than teachers with less confidence in their management skills. While student behavior problems are stressful for teachers, they alone are not enough to cause a change in teachers’ goal practices.

### *Grade Level*

The grade level taught did not impact the relationship between any of the predictor variables and the use of performance goal practices. As seen in previous

studies (Hughes, Wu, & West, 2011), the use of these practices increases as students enter the upper elementary grades. Despite this, there is no change on how variables related to teacher stress impact

#### *Limitations and Future Directions*

While this study takes an initial look at the role of teacher stress, there is still much to be learned. Only one variable was used that was a teacher-reported construct of stress. Future studies should expand the study of teacher stress and burnout by using more variables that capture the specifics of the phenomenon and rely on established models such as Boyle's (Boyle et al, 1995). This would capture the specific elements of teaching that lead to undesired teaching practices. The current study indicates that the use of performance goal structures goes beyond classroom management concerns, so other aspects of teaching such as academic pressures (such as those from standardized testing, or from classrooms with high special needs students), workload, and school climate need to be understood. In addition to better understand stressed teachers, further exploration should be done on the aspects of beginning teaching that lead to these teaching practices. By separating out elements such as self-efficacy, school support, knowledge of instructional practices, and other elements that are critical to effective teaching but are often lacking in the first years, in addition to exploring elements of stress as described above, a clear picture can be made of where novice teachers need support.

Additionally, while the results of this study are significant, the variables of teacher stress only explained 7% of teacher-reported use of performance goal practices.

This affirms the notion that many factors influence the decisions teachers make when managing their classroom. Teachers may select practices based on personal characteristics such as classroom dynamics and student needs, knowledge of practices and ability to implement them, or available resources and time available to plan. More significantly, teachers do not exist in a microcosm, and many classroom management decisions are made by the grade level or, more importantly by school leaders (Maehr & Midgley, 1991). Teachers may be required to enter their students in competitions, honor rolls, and other practices whether or not they personally believe in social comparison. It is therefore important that any research into the influences on teacher practices seek to understand the larger context in which teachers make decisions about instruction and classroom management.

It is recommended that schools assist their teachers in feeling positive about themselves and their professions, ensuring they have the skills throughout their careers to make positive decisions in the classroom. For novice teachers, induction programs and mentoring programs can be valuable. These programs give novice teachers a formal structure to learn their jobs through increased professional development and structured support. Having a mentor gives the novice teacher a person to go to with individual concerns and questions, as well as a role model for quality teaching. Mentoring programs have been demonstrated to increase teacher retention rates among new teachers (Barrera, Braley, & Slate, 2010). For teachers who are more experienced but feels a high level of stress, schools should also be proactive in addressing concerns. Administrators should be monitoring issues that cause stress, such as student discipline

and a high workload, and determine where they can assist their staff. Some problems may be school-wide issues and should be addressed at that level. Continuing education and staff development should be encouraged for all so that teachers have a large range of strategies to motivate and encourage their students. This training should help teachers understand current research, and should include information about the implications for using social comparison so that they can be encouraged to use more positive methods. Collaboration should be encouraged and communities should be fostered so that ideas are shared and no teacher feels alone in their concerns. Schools should also examine what practices they are encouraging to be sure that they are promoting best practices in the classroom.

There are many drawbacks to using performance goal practices, yet they are widely in place by teachers who are struggling to survive. By giving them the support needed to become strong teachers and feel confident they can handle their workload, as well as educating them on the highest quality of teacher practices, schools can ensure success for both their teachers and their students.



## CHAPTER III

### THE RELATIONSHIP BETWEEN TEACHER REPORTED GOAL PRACTICES AND PEER ACCEPTANCE IN ACADEMICALLY AT-RISK STUDENTS

#### **Introduction**

##### *Peer Acceptance and School Outcomes*

An important developmental asset for children and youth is peer acceptance. Peer acceptance is defined as a measure of social status within the peer group that is related to a feeling of inclusion in the classroom and provides access to work and play partners (Ladd & Coleman, 1997). Peer acceptance generally refers to whether the child has been accepted or rejected by the peer group as one of their own (Maassen, vanderLinden, & Akkermans, 1997). There are many benefits to being accepted by one's peer group at school. Kindergarteners who are accepted by their peers enjoy school and participate actively in class activities throughout the school year (Ladd, Kochenderfer, & Coleman, 1997). Lower elementary students who are highly accepted by their peers and are considered "popular" show high levels of school adjustment and demonstrate strong work habits, both in the year that acceptance is measured and in subsequent years (O'Neil, Welsh, Parke, Wang, & Strand, 1997). In addition, children and adolescents who are accepted by their peers are likely to have strong social skills (Frentz, Gresham, & Elliott, 1991; O'Neil et al., 1997). The relation between peer acceptance and social skills has been demonstrated to be reciprocal, where social skills provide a child the ability and opportunity to make friends and be accepted, and in turn

the peer interactions promote further development of appropriate social behavior (Orue & Calvete, 2011).

Another attribute which is related to peer acceptance is academic achievement. Extensive research has demonstrated that peer acceptance and academic achievement are moderately related in childhood (Estell et al., 2002). This relationship is also generally seen as reciprocal, with peer acceptance positively affecting a student's academic achievement, and high achievement positively impacting how a student is judged by peers (Chen, Rubin, & Li, 1997). A bidirectional model postulated by Veronneau and colleagues (Veronneau, Vitaro, Brendgen, Dishion, & Tremblay, 2010) explains that when students are accepted by their peers, they feel a greater sense of school belonging and acceptance, and overall higher levels of self-worth. Additionally, this acceptance provides them a peer group to seek out for help on academic tasks. In the other direction, when students do well academically, they receive praise and attention from the teacher, and may be sought out by peers for group work and other school tasks.

The classroom context can have a strong influence on whether children accept peers with different traits into their social group. In many instances, the characteristics of the students in a classroom influence which characteristics or behaviors are valued by classmates. In a study of first grade classrooms (Stormshak et al., 1999), normative classroom behaviors were found to moderate the relationship between individual student behavior and peer acceptance. For example, in classrooms where aggressive behavior was not the norm, aggressive students were less accepted by their peers, but in classrooms where aggressive behavior was the norm the relationship was reversed and

aggressive students were actually favored by their peers. Chang (2004) conducted a follow-up study with middle school students. The results were similar, with classroom norms moderating the relationship between individual behavior and peer acceptance in all three behaviors measured. In both studies, the relation between aggression and acceptance was most affected by classroom norms, followed by withdrawal and prosocial behavior.

Teacher behaviors and practices also influence the classroom context in which students make peer judgments. Students pay attention to teacher behavior toward their peers, and notice when high achievers are treated differently than low achievers (Babad, 1990). They also notice when teachers develop positive and negative relationships with classmates, and use these relationships to aid in their judgments. Hughes, Cavell, and Willson (2001) demonstrated that elementary students who have supportive relationships with their teachers are likely to be accepted by their peers, even if they are rated high in a negative behavior trait such as aggression. Chang and colleagues (2007) studied teacher preference, or how much a teacher likes a particular student, and its effect on peer acceptance. The researchers used path analysis to determine the mediating or moderating effect teacher preference has on positive or negative student behaviors and peer acceptance. Results indicated that lower and upper elementary students all use teacher preference information when making peer judgments.

While the classroom context lends itself to many teacher cues indicating liking or preference, there is also information being transmitted that may influence the relationship between academic achievement and peer acceptance. Early research on

classroom structure (Rosenholtz & Simpson, 1984a) examined a type of classroom, called a *unidimensional* classroom, where students learn about their own and classmates' academic achievement based on ability grouping, formal evaluation, and peer comparison. In this classroom students are presumed to be aware of their academic standing as well as rank order of their peers through the numerous cues given in the classroom. Research on unidimensional classrooms indicated that students were more in consensus about peer ability than students in classrooms without these structures. While Rosenholtz and Sampson did not pursue this line of research, they theorized that the social comparison practices seen in the classrooms they studied would lead to a relationship between academic achievement and peer variables such as social power, friendships, and popularity (Rosenholtz & Simpson, 1984a).

While it appears classroom context plays a major role in peer acceptance through teachers' own relationships with students, there is still much to learn about the roles that classroom structure and social comparison may play. A more recent classroom construct, classroom goal structure, examines the cues that teachers give students about academic competence and may be an influence on peer relationships.

#### *Classroom Goal Structure Theory and Peer Relationships*

In classrooms, teachers have goals for their students' learning, and set up their classrooms in ways that reflect these goals. *Classroom goal structure theory* states that teacher practices are used in classrooms that reflect teachers' goals for their students' learning. Classroom goal structure theory divides these practices into *mastery* and *performance* goal structures, terminology that reflects the origins of this theory in earlier

work on personal student goal orientations (Ames, 1992). In a classroom with a mastery goal structure, the teacher emphasizes the importance of learning new material and personal growth. The teacher shows students how they have improved and gives them choices on tasks, focusing on their interests, needs, and ability levels. In classrooms where teacher practices emphasize a mastery goal structure, students have shown positive outcomes in many areas of academic and behavioral adjustment (Meece, Anderman, & Anderman, 2006).

In a classroom with a performance goal structure, the teacher emphasizes social comparison and ability as compared to other students. Specific teacher practices that are associated with this orientation include displaying the best work for all students to see, giving rewards or privileges to the highest achieving students, pointing out certain students as a model for others, and encouraging competition among students. The research on the effect of these practices on individual student outcomes has been demonstrated to be largely negative, often showing increases in behaviors such as cheating (Murdock et al., 2007) and disrupting class (Kaplan et al., 2002). These results, however, may depend on the students' preexisting goal orientations, which use the same performance and mastery goal terminology. Evidence indicates that while this classroom goal structure may not necessarily lead to negative outcomes in students who have a performance-*approach* orientation, in which students judge their success based on the success of their peers, it is harmful for those who have a performance-*avoid* orientation, in which students seek to avoid negative social comparison situations and fear failing in front of their peers (Lau & Nie, 2008).

Performance goal structure has only been studied as it relates to individual student outcomes, yet the ability cues that characterize such a structure might have an effect on how students perceive and evaluate classmates. While this was indicated in early research (Rosenholtz & Simpson, 1984a), it has not been examined through the modern constructs of social comparison, of which performance goal practices are the most prominent.

A recent study may be useful in understanding the role of modern classroom contexts in the social relationships of students. Hughes and Zhang (2007) examined relationship patterns in first grade classrooms utilizing a concept called *indegree* to determine the amount of consensus about which peers were strong academically. Using sociometric interviews, students were asked to name their peers that were best at reading, math, or schoolwork. In classrooms with a high indegree, the majority of students named the same few children, while in classrooms with a low indegree the nominations were scattered. Their multilevel analysis demonstrated that in these first grade classrooms, indegree moderated the relationship between reading achievement and peer acceptance, such that the relation was stronger in classrooms with higher indegree.

The concept of indegree establishes that students are aware of the academic abilities of their peers, but it does not explain how they learn this information. It is known that students look to their teachers for cues to guide in their decisions about peers, as seen in teacher preference and teacher-student relationship research.

Performance goal practices, then, may serve as a way for teachers to convey this

information and give cues about academic performance that students can use to make inferences about classmates' academic ability and social acceptability.

### *Purpose of Study*

The purpose of this study was to determine the influence of teacher-reported performance goal practices on peer relationships. In classrooms with high performance goal practices, high achieving students likely receive attention and praise for their abilities, while low-achieving students do not receive the attention and accolades of their peers, and may even receive negative attention for their lack of success. Due to these classroom messages, and the tendency of children to favor higher achieving students, low-achieving students may be negatively impacted socially by being in classrooms with these performance goal practices. This study aimed to test the hypothesis that performance goal practices moderate the relationship between academic achievement and peer acceptance. It is expected that low achieving students are less accepted in classrooms with higher performance goal practices than in classrooms with lower performance goal structure, while high achieving students are favored by their peers and are more accepted in classrooms with higher performance goal practices.

This study was conducted with classrooms at different developmental stages, because the nature of peer relationships can change throughout childhood. A sample of mostly second and mostly fourth graders was used. Due to the lack of research on classroom goal practices and social relationships, there is little existing evidence to guide a hypothesis as to the effect of grade level on the relationship between academic achievement and peer acceptance. This is therefore considered an exploratory study that

intends to understand the differing impacts of teacher practices on the social relationships of younger versus older elementary school students.

## **Methods**

### *Participants*

The participants in this study were recruited in two sequential cohorts in 2001 and 2002 as part of a larger study on grade retention. They came from three school districts, one urban and two small city. A total of 784 children were recruited into the larger longitudinal study. Participants for the larger study were recruited for the study if they scored below the median on a district-approved measure of literacy skills in first grade, and did not meet other exclusionary criteria such as speaking a language other than English or Spanish and qualifying for special education services. Participants for the current study were selected from the second year of the longitudinal study (Time 2), which included primarily second graders but also contained retained first graders. They were also selected from the fourth year of the study (Time 4), which likewise included mostly fourth graders but also retained students. Participants were included if their teachers had completed a questionnaire which included information on goal practices, which gave them complete data at the classroom level. At Time 2, a total of 578 students in 333 classrooms participated in the study; at Time 4, 512 students in 243 classrooms participated. Out of the 578 participants at Time 2, 558 had data on academic achievement and 554 had data on peer acceptance. Of the 512 participants at Time 4, 499 had data on academic achievement and 491 had data on peer acceptance. Descriptive information on the participants is given in Table 5. In addition to student



and teacher participation in the study, each participant's classmates were asked to complete peer nomination surveys on both the participant and the other students in the classroom.

Table 5.

*Demographic Characteristics of Sample*

Sample	Time 2 (n=578)	Time 4 (n=512)
Male	53.1%	52.6%
Caucasian	35.3%	35.0%
African American	23.0%	22.4%
Hispanic	36.5%	38.5%
Asian/Pacific Islander	3.6%	3.1%
Native American	0.2%	0.2%
Other	1.4%	0.8%

*Measures*

Teachers rated their use of practices involving social comparison using the Patterns of Adaptive Learning Scale (Midgley et al., 2000), a common measure of classroom goal structure. For this study the five-item section on performance goal orientation was used, with a five-point Likert scale. The teacher-report section of the PALS has demonstrated construct validity through their prediction of student use of self-handicapping strategies (Urduan et al, 1998), student disruptive behaviors (Kaplan et al,

2002), student reports of performance goal structures (Kaplan et al, 2002), and student behavioral engagement (Hughes, Wu, & West, 2011). For second and fourth grade teachers in the current sample, the reliabilities were .73, and .74, respectively. The five questions are as follows:

1. I give special privileges to students who do the best work.
2. I display the work of the highest achieving students as an example.
3. I help students understand how their performance compares to others.
4. I encourage students to compete with each other.
5. I point out those students who do well as a model for the other students.

The present academic ability of the participants was assessed using the Woodcock-Johnson III Tests of Academic Ability, Third Edition (WJ-III; Woodcock, McGrew, & Mather, 2001), a common test of achievement in core academic subjects. For this study academic achievement was measured using the WJ-III Broad Reading age-based Standard Scores (Letter-Word Identification, Reading Fluency, Passage Comprehension subtests) and the WJ-III Broad Math age-based Standard Scores (Calculations, Math Fluency, and Math Calculation Skills subtests). Broad Reading and Broad Math age standard scores have a mean for the standardization sample of 100 and standard deviation of 15.

Those students who spoke Spanish or whose parents reported speaking Spanish at home were tested with the Woodcock Munoz Language Proficiency Test (Woodcock & Munoz-Sandoval, 1993) to determine their language proficiency in English and Spanish. Students more proficient in Spanish were administered the Bateria Woodcock-

Munoz: Pruebas de aprovechamiento—Revisada (Bateria-R; Woodcock & Munoz, 1996) at Time 2. The Bateria-R yields scores that are comparable to the Woodcock Johnson Tests of Achievement-Revised. At Time 4, a new version of the test, the Bateria III Woodcock-Munoz Pruebas de aprovechamiento (Bateria-III; Muñoz-Sandoval, Woodcock, McGrew, & Mather, 2005) was administered to Spanish language dominant children. The Bateria III yields scores that are comparable test to the WJ-III. The Broad Reading and Broad Math age-based standard scores were reported.

Each participant in the peer nomination process was asked a series of questions about the other children in his or her classroom. Each interview was done individually with a trained research assistant, and participants were assured that their answers would be confidential. To assess peer acceptance and rejection, participants were asked to rate how much they liked each student on a 5-point scale, with 1 denoting "don't like at all" and 5 denoting "like very much". For this study, the mean of the ratings received by each student during the peer nomination interviews was used as a measure of peer acceptance. This variable was selected because it best captures the variance in peer acceptance among children in a classroom (Terry & Coie, 1991).

In cases where peer nomination data were not collected on study participants, questions were added to the teacher demographic survey designed to gather information similar to the peer nomination interviews. The teachers were asked to predict how the student's peers would rate them- to substitute for the "mean rating" variable of peer acceptance, teachers were asked "Overall, how much is this child liked by classmates?" They were given multiple choice responses to rank the student in the middle of the class

or in upper or lower quadrants. These responses were converted into ratings that corresponded with the peer acceptance variable. A student who the teacher believed was accepted right at the 50<sup>th</sup> percentile, for example, was rated with a mean peer acceptance of 3. The teacher rating was correlated with the mean peer acceptance at Time 2 ( $r=.442, p<.000$ ) and Time 4 ( $r=.415, p<.000$ ).

### *Analysis*

Because the students at the two time periods are nested within 333 and 243 classrooms, respectively, and both classroom variables and student outcomes were of interest in this study, analysis of the primary model was done using a two-level hierarchical linear model using HLM6 (Raudenbush, Bryk, & Congdon, 2004). All descriptive and correlational analyses were done in SPSS 18.

## **Results**

### *Preliminary Analyses and Zero-Order Correlations*

Descriptive statistics for the key variables are given in Table 6. Students in both time periods levels had a mean academic ability and reading ability that is similar to the standardization sample, with average scores near 100 and standard deviations near 15. Students There was a difference between the grade levels in respect to teacher-reported goal practices, with the use of performance practices increasing in fourth grade ( $t(516)=4.605, p<.000$ ). This result is consistent with previously reported data from this longitudinal study (Hughes, Wu, & West, 2011).

Table 6.  
*Descriptive statistics of predictor and outcome variables*

Variable	Time 2 (n=578)	Time 4 (n=512)
Math Achievement	100.69 (13.01)	101.38 (12.33)
Reading Achievement	96.50 (16.86)	95.83 (13.85)
Peer Acceptance	3.32 (.78)	3.12 (.69)
Performance Goal Practices	2.34 (.71)	2.54 (.76)

Zero-order bivariate correlation results are presented in tables 7 and 8. Academic achievement was not correlated with performance goal practices at any grade level. At Time 4, there was a significant correlation ( $r=.104$ ,  $p<.05$ ) between performance goal practices and peer acceptance, indicating that students received more positive peer ratings in classrooms with more performance goal practices, relative to students in classrooms with lower performance goal practices. At each grade level the relationship between achievement and peer acceptance varied by subject. Math achievement was not significantly related to peer acceptance at Time 2 or Time 4. Reading achievement was positively related to peer acceptance at both Time 2 ( $r=.152$ ,  $p>.001$ ) and Time 4 ( $r=.157$ ,  $p>.01$ ). In both cases the relationship was in the positive direction, indicating that in the case of reading, more academically capable students are more accepted by their peers.

Table 7.  
*Zero-order bivariate correlations at Time 2*

	1	2	3	4
Math Achievement		.580***	.036	-.043
Reading Achievement			.152***	-.008
Peer Acceptance				.023
Performance Goal Practices				

\* p < .05   \*\*p < .01   \*\*\*p < .001

Table 8.  
*Zero-order bivariate correlations at Time 4*

	1	2	3	4
Math Achievement		.615***	.020	-.007
Reading Achievement			.157**	.056
Peer Acceptance				.104*
Performance Goal Practices				

\* p < .05   \*\*p < .01   \*\*\*p < .001

Fisher's  $z$  analyses were conducted to compare the correlations between reading and math achievement and peer acceptance at the different time periods. Results were not significant for either reading or math achievement, indicating the relationship between achievement and peer acceptance is similar in lower and upper elementary grades.

### *HLM Analyses*

HLM analyses were conducted to determine if teacher-reported goal performance practices moderate the relationship between academic achievement and peer acceptance. Reading and math achievement were entered at level 1 as predictor variables, while peer acceptance was entered at level 1 as an outcome variable. Teacher-reported performance goal practices, which reflect a classroom-wide construct, were entered at level 2. All predictor variables were grand mean centered. This practice is recommended when the zero value of a variable is not a possible outcome and is therefore meaningless (Hox, 2002). In the case of goal practices, a Likert scale of 1-5 was used on survey questions, meaning a zero score was impossible. Grand mean centering, which subtracts the overall mean of the variable from each value, was chosen as the best way to create meaningful intercepts for the predictor variables (Hox, 2002). Additionally, during all analyses full maximum likelihood (FIML) estimates were conducted to approximate any missing data at level 1.

The unconditional model, with peer acceptance as the outcome and no predictor variables entered, was analyzed first. The intraclass correlation coefficient (ICC) measures the proportion of total variance in an outcome variable explained by between-class differences. The ICC for the unconditional model for peer acceptance was 20% at Time 2 and 36% at Time 4.

Analyses were next conducted to evaluate the relationship between academic achievement and peer acceptance. A student-level or level-1 model was run to examine

the significance of the two level-1 predictors, math and reading achievement, at each time period. The model is:

$$(Peer\ Acceptance)_{ij} = \gamma_{00} + \gamma_{10} * (Achievement) + u_{0j} + u_{1j} * (Achievement)_{ij} + r_{ij}$$

Results of these analyses are presented in Table 9. At Time 2, significant relationships were found for both reading achievement ( $\gamma=.007$ ,  $p<.001$ ) and math achievement ( $\gamma=.007$ ,  $p<.01$ ). At Time 4, a significant relationship was found for reading achievement ( $\gamma=.011$ ,  $p<.001$ ), while the relationship between math achievement and peer acceptance was marginally significant at the  $p=.06$  level ( $\gamma=.005$ ,  $p=.06$ ). Comparing the level 1 models with the unconditional model, reading achievement explained 10% of the variance in peer acceptance at Time 2, while math achievement explained 7% of the variance. Reading achievement explained 8% of the variance in peer acceptance at Time 4, while math achievement explained 5% of the variance.

A level 2 model was also created to determine the relationship between performance goal practices and peer acceptance. The model is:

Level-1 Model

$$(Peer\ Acceptance)_{ij} = \beta_{0j} + r_{ij}$$

Level-2 Model

$$\beta_{0j} = \gamma_{00} + \gamma_{01} * (Performance\ Goal\ Practices_j) + u_{0j}$$

Mixed Model

$$(Peer\ Acceptance)_j = \gamma_{00} + \gamma_{01} * (Performance\ Goal\ Practices) + u_{0j} + r_{ij}$$

This model was run at both time periods, with results presented in Table 9. Performance goal practices did not contribute to peer acceptance at either time period.



The full model was then constructed, with achievement as a predictor variable at level 1 and performance goal practices at level 2. This model was run for both reading and math, and at both Time 2 and Time 4. This model is shown below:

#### Level-1 Model

$$(\text{Peer Acceptance})_{ij} = \beta_{0j} + \beta_{1j} * (\text{Achievement}_{ij}) + r_{ij}$$

#### Level-2 Model

$$\beta_{0j} = \gamma_{00} + \gamma_{01} * (\text{Performance Goal Practices}_j) + u_{0j}$$

$$\beta_{1j} = \gamma_{10} + \gamma_{11} * (\text{Performance Goal Practices}_j) + u_{1j}$$

#### Mixed Model

$$(\text{Peer Acceptance})_{ij} = \gamma_{00} + \gamma_{01} * (\text{Performance Goal Practices})_j + \gamma_{10} *$$

$$(\text{Achievement})_{ij} + \gamma_{11} * (\text{Performance Goal Practices})_j * (\text{Achievement})_{ij} + u_{0j} + u_{1j} *$$

$$\text{Achievement}_{ij} + r_{ij}$$

Table 9 presents the results of the hypothesis testing for the full model at Times 2 and 4. There was a moderating effect on the relationship between math achievement and peer acceptance at Time 2 at the  $p=.06$  level ( $\gamma=.008$ ). The results were not significant for reading achievement. Performance goal practices explain 2% of the relationship between reading achievement and peer acceptance, while they explain 22% of the relationship between math achievement and peer acceptance. The results were not significant for either academic subject at Time 4.

Table 9.  
*Hierarchical linear modeling analyses*

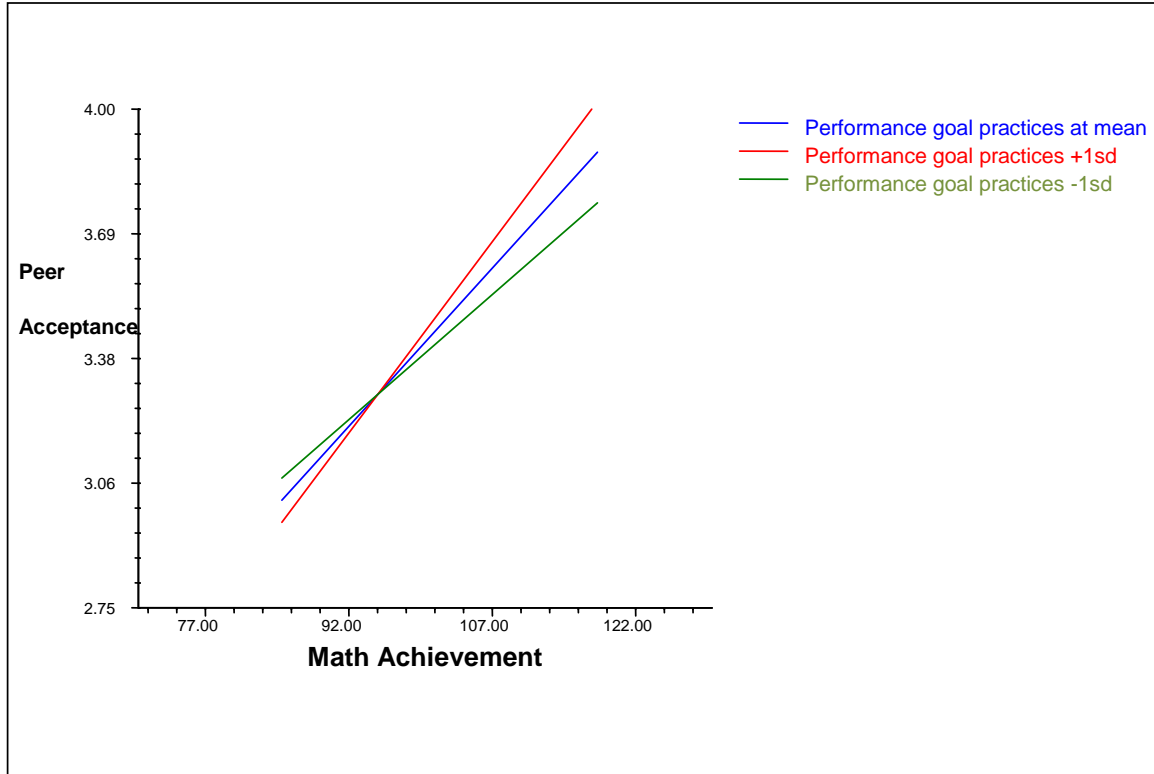
	Coefficient	SE	<i>t</i> test
<i>Time 2 Analyses</i>			
Math Achievement (L1)	.007	.003	2.714**
Reading Achievement (L1)	.007	.002	2.907**
Performance Goal Practices (L2)	.020	.054	0.367
Math Achievement x Performance Goal Practices (L2)	.008	.004	1.906
Reading Achievement x Performance Goal Practices (L2)	.004	.004	1.223
<i>Time 4</i>			
Math Achievement (L1)	.005	.002	1.862
Reading Achievement (L1)	.011	.002	4.246***
Performance Goal Practices (L2)	.094	.055	1.713
Math Achievement x Performance Goal Practices (L2)	-.005	.004	-1.327
Reading Achievement x Performance Goal Practices (L2)	-.004	.003	-1.065

Note: L1 indicates a first-level effect, while L2 indicates a second-level effect

\*  $p < .05$  \*\* $p < .01$  \*\*\* $p < .001$

To graphically depict the interaction effects, the relationship between math achievement and peer acceptance at Time 2 was plotted at three levels (1 standard deviation above the mean/+1SD, the mean, and 1 standard deviation below the mean/-1SD) of teacher-reported use of performance goal practices. These effects can be seen in Figure 1.

Figure 1.  
*Interaction of performance goal practices with math achievement predicted peer acceptance*



## **Discussion**

The purpose of this study was to examine how performance goal practices moderate the relationship between academic achievement and peer acceptance. Multilevel analyses using HLM were conducted to test this hypothesis at two time periods, representing lower and upper elementary grades, and for reading and math achievement.

At the student level, academic achievement predicted peer acceptance in the case of both reading and math at Time 2, and in the case of reading only at Time 4. The level 1 analyses in this sample were consistent with previous studies (Estell, et al., 2002; Hughes & Zhang, 2007), demonstrating that students with higher academic ability are more liked and accepted by their classmates, whereas students who struggle academically in school may be seen as less well liked by their peers. These relationships were proven to exist in both lower and upper elementary grades, showing that students of all ages prefer higher achieving peers. The relationship between math achievement and peer acceptance in the upper grades was in the same direction but did not reach statistical significance.

The multilevel analyses confirmed part of the overall hypothesis. For Time 2, which included second graders and retained first graders, teacher-reported goal practices were demonstrated to moderate the relationship between math achievement and peer acceptance. The present study is an important extension of Hughes and Zhang (2007) because it provides further evidence that teacher practices may play a role in how students view each other's academic abilities. Their work with indegree demonstrated

that when students are in agreement about their peers' abilities, the relationship between achievement and peer acceptance was stronger. It did not explain, though, how students gained that information. The present study helps to answer that question by demonstrating that teacher practices are influential on peer relationships in lower elementary grades. Performance goal practices give students many cues throughout the day, from postings on bulletin boards to verbal praise. In first and second grade, students are listening to these cues, either actively and passively, and using them to influence their judgments about their peers.

The two studies differ, however, in that the moderating relationship for indegree was found for reading achievement, while the moderating relationship for performance goal practices was found for math achievement, and only marginally so. This was a surprising finding, considering there are generally more cues about reading ability than math ability in lower elementary classrooms. More instructional time is spent on reading than any other subject, and oral reading is regularly used during instruction, giving students many opportunities to evaluate the abilities of their peers (Hughes & Zhang, 2007). These instructional practices, however, differ from performance goal practices, which involve specific activities that compare students to each other. It is possible that because there are so many natural reading cues in the classroom, students do not need the additional information from teachers to evaluate their peers on reading ability, but the cues about math ability are more useful in making judgments.

An exploratory factor in this study that was not considered by Hughes and Zhang was how classroom context might moderate the relationship between achievement and

peer acceptance differently for upper and lower elementary students. While performance goal practices were a moderating variable in lower elementary for math achievement, they did not influence the relationship between achievement and peer acceptance in upper elementary grades. In these upper grades, performance goal practices are used more frequently, so there are more cues from teacher to help these students judge their peers' ability. Despite this, students in upper elementary classrooms do not significantly use these cues to alter their thoughts about their peers. It is possible that by third and fourth grades the students know each other well, and have already received enough information about each other's abilities to make judgments that would impact peer acceptance. At this point, teacher praise or classroom competitions may not add any extra information. It is also possible that children are not as interested in teacher input at this age as they were when they were younger.

Both of these concepts are supported by research on teacher preference. Chang and colleagues (Chang et al., 2007) studied the mediating and moderating impact of teacher preference on the relationship between student behavior and peer acceptance among elementary students. The researchers used path analyses to understand differences between grade levels in how teacher preference mediated or moderated relationships. These results indicate a developmental difference in how students use teacher information. Overall the strongest relationships were seen as mediating relationships in younger grades and moderating relationships in older grades. Chang postulated that the mediating relationship seen in lower elementary grades occurs because younger students take in their teacher's information about who to like or dislike,

and adopt this view when they make their own evaluations. They do not use, or ignore, previous information about their peers and depend primarily on teacher feedback. The moderating relationship, meanwhile, occurs when children already have existing information or have made judgments about their peers, and are using teacher preference as additional information to help them make decisions about whether to accept or reject a classmate.

Even though the present study demonstrates a moderating relationship and therefore varies somewhat from Chang's results, there are many implications from teacher preference that can be applied. Lower elementary children tend to rely on adult information and feedback to make decisions about their peers. Just as they are more likely to make judgments based on why they believe their teacher likes or dislikes, they seem to be similarly affected when they believe their teacher is favoring certain students due to their academic ability. Upper elementary students, meanwhile, do not internalize teacher information as quickly. Rather, they analyze adult values with more sophistication and complexity before deciding whether to embrace them as their own. Teacher cues about academic ability, then, may be noticed and internalized, and even interpreted as judgments of teacher preference, but not necessarily adopted as a personal preference. Additionally, older children made judgments about peers in a number of ways, using preexisting information and other aspects of their social network, so that the teacher practices either do not add additional information, or simply provide information that strengthens or confirms their own beliefs.

This study can be viewed through its strengths and limitations. It uses multilevel analyses to account for the nested structure of students in classrooms, and uses this methodology to effectively conduct moderation analyses with two levels of data. The sample size is large and includes a diverse sample of students. Multiple methods, from academic testing to teacher survey to student interviews, were used to effectively access the different variables of interest. One limitation of this study is that the sample may not be representative of the larger student population. Students were initially recruited if they were below the district median on a test of literacy, and around a quarter of the current sample have been retained, issues that could affect both their academic achievement and peer acceptance. Descriptive statistics indicate that the sample scored near the mean on all achievement variables, with comparable variance. Despite this, the sample may not accurately reflect the average classroom population, particularly in regards to higher achieving students, so results should be generalized with caution. Additionally, there has been debate over whether teacher reports are the best measure of the use of goal practices, or whether it is better to survey students to understand their perception of the classroom environment (Ames, 1992).

Finally, this study adds to the growing work on classroom contexts and their effect on social constructs. It demonstrates that for low achieving students, the messages sent by teachers can be harmful to their acceptance, adding to an already challenging environment. Future work in this field should continue to add to the role that performance goal practices play in social relationships, both as a moderator and possibly as a mediator, to better understand how students take in and utilize teacher cues.



Additionally, other aspects of the classroom environment and teacher practices should be studied to identify how students gain information about their peers that is both helpful and harmful. By better understanding how teachers and schools influence the social relationships of students, best practices can be developed to create schools and classrooms where all children feel accepted and motivated to learn and succeed.

## CHAPTER IV

### CONCLUSION

#### **Summary**

Performance goal practices were conceptualized by motivational researchers as a set of teacher behaviors and classroom structures that promote social comparison (Ames, 1992). Through these practices, which include visible acknowledgements such as bulletin boards and rewards as well as verbal praise and recognition in front of peers, students are made aware of which children in a classroom are the high achievers. Students in classrooms with performance goal practices not only understand who the brightest students are, but also are aware of their ranking relative to their peers. For some students, particularly high achievers, this may be a motivator but for students who do not receive recognition, or who are afraid of failing in front of others, these practices could be detrimental to their school performance. Despite this, performance goal practices are still widely used in schools today.

The purpose of this two article format dissertation was to explore two aspects of performance goal practice usage in elementary school classrooms. First, the characteristics of teachers that might influence the use of performance goal practices were explored. Next, an examination was done of the effects of these practices on the social relationships of students.

*Study 1*

The purpose of the first study was to determine the contribution of teacher stress to the use of performance goal practices among elementary school teachers. It was hypothesized that teachers who experience more stress do not use best practices in the classroom due to feeling overwhelmed, exhausted, or unsure about their abilities. Novice teachers were expected to have many of these same difficulties, in addition to a lack of training on teaching methods.

Results indicated that teachers who reported high levels of stress and who were newer to the profession were more likely to use performance goal practices in the classroom than were teachers reporting lower levels of stress. This relationship was not affected by the grade level taught by the teacher. The third variable tested, classroom aggression, was not a significant predictor of the use of performance goal practices. This variable, however, was based on student report and not on teacher report; thus it does not account for factors such as teacher confidence in classroom management skills and differing opinions between teachers and students in classroom behavior.

The results from this study support the hypothesis that teachers who are under stress may not use best practices in the classroom, a finding which has been reported in previous studies (Retelsdorf, Butler, Streblov, & Schiefele, 2009). The finding is also supported by research that indicates teachers who are under stress tend to choose classroom management strategies that are reactive (Clunies-Ross, Little, & Kienhuis, 2008). Similarly, performance goal practices can often seem negative and are not as

carefully considered as other preferred motivational strategies that are more positive and proactive.

The particular issue of novice teachers' use of performance goal practices has been addressed in the literature with mixed results. The only previous studies on this topic have reported no relationship between such practices and years of experience (Wolters & Daugherty, 2007; Wolters, Fan, & Daugherty, 2011). Other studies have demonstrated that teachers with fewer years of teaching experience are less confident about their abilities in teaching their students and managing their classrooms, which then lead to poorer teaching practices (Wolters & Daugherty, 2007 ;Klassen & Chui, 2010). It is theorized, however, that novice teachers may engage in performance goal practices due to the stress of entering the teaching profession. These teachers are faced with the additional tasks of learning their curriculum as well as mastering classroom management and instructional techniques. Additionally, teachers with fewer years of experience have not mastered as many techniques that may lead their students to success. For these reasons novice teachers may be more likely to choose teaching practices that are more reactive or take less preparation, similar to more experienced teachers who are also under stress or overwhelmed.

### *Study 2*

The purpose of the second study was to understand the role of performance goal practices in the social relationships of elementary school children. While most studies on classroom goal structures have focused on individual outcomes such as motivation and engagement (Lau & Nie, 2008), there is little understanding of how these practices

could affect the social outcomes of these students. Performance goal practices, through their use of social comparison, provide information to students about their peers' academic abilities. Numerous studies have demonstrated that there is a positive relationship between academic achievement and peer acceptance (Estell et al, 2002; Hughes & Zhang, 2007). It was hypothesized that this relationship would be stronger in elementary classrooms in which there was a higher use of performance goal practices.

Hierarchical linear modeling results indicated that for lower elementary students performance goal practices moderate the relationship between math achievement and peer acceptance. In these classrooms, the information provided through these teacher practices may affect student judgments about their peers so that in classes where there is a higher use of performance goal practices, there is a stronger relationship between math achievement and peer acceptance. Higher achieving students were likely to receive more favorable ratings from their peers, but students who were weaker in math and may have received little positive recognition from their teacher were not likely to be favored by their peers.

The results from this study were designed to extend the results of Hughes and Zhang (2007), which found a stronger relationship between achievement and peer acceptance in classes where students were at greater consensus on their classmates' academic abilities. As hoped, the present study demonstrated that teacher cues through performance goal practices helped to explain the strength of the relationship between achievement and peer acceptance. The studies differed in that Hughes and Zhang found an effect for reading achievement only, while the present study's results were for math

achievement only. Both studies are consistent with the view that children are attuned to the classroom environment and use cues to make judgments about peers' academic abilities, which then influence the relationship between achievement and peer acceptance.

#### *Overall Conclusions on Goal Practices*

Overall, the two studies presented in this dissertation attempt to answer important questions about the use of performance goal practices and their effects on students. The first study indicates that teachers who experience more stress in the profession are more likely to use performance goal practices than the rest of the teaching population. These teachers may be experienced teachers who find their students drain their energy or novice teachers who are faced with the many challenges of learning the profession. The second study indicates that in lower elementary classrooms that use these performance goal practices there is a stronger relationship between math achievement and peer acceptance. For students in classrooms with a high use of these practices, students who are strong at math are likely to be favored by their peers, while those who are weaker at math are less likely to be rated by their classmates as socially preferred.

When considered together, these studies support previous indications that performance goal practices are not optimal for use in the elementary classroom. If they were, they would be equally chosen by teachers who were not under stress- teachers who had energy, enjoyed their job, and were trying to more than just get through a day. The fact that they are not as commonly chosen by experienced teachers also indicates that when educators have developed a larger repertoire of methods for motivating their

students they are not as likely to choose social comparison. It seems that teachers who have knowledge of different practices, and have the energy and desire to do what is best for their students do not use performance goal practices. Even though social comparison practices are still often seen in schools today, there seems to be increasing knowledge that they are not best practice.

The second study provides another indicator of how these practices can be harmful to certain students. Students with lower math achievement may get little or no recognition for their academic accomplishments, and in social comparison situations peers may conclude that they are near the bottom. These students may receive lower peer liking ratings than they would in a less competitive classroom.. If children who are already having academic difficulties then face low peer acceptance, their long-term chances of school success could be at risk.

## **Implications**

### *Implications for Practice*

The studies presented in this dissertation add to the body of knowledge on the possible harms of performance goal practices, particularly for lower achieving students. Although it seems logical to suggest practices that avoid social comparison, such practices are common, especially in older grades (Hughes, Wu, & West, 2011). The current results suggest that educators should strive to decrease their use of performance goal practices, in order to create classrooms in which lower performing students experience higher peer acceptance. Lower performing students may be especially vulnerable to the negative effects of low acceptance, contributing to their risk of

disengaging from school, both psychologically and behaviorally. A perceived lack of peer acceptance is a consistent predictor of low school engagement (Buhs, 2005).

Results suggest that teacher pre-service programs should educate teachers as to the possible deleterious effects of performance goal practices and equip them to use more learner-directed, mastery-goal practices. Practices such as flexible ability grouping, individualized instruction, and individual progress monitoring are integral parts of Response to Intervention (Sulkowski, Wingfield, Jones, & Coulter, 2011), which has emerged as a preferred way to target struggling learners. Training in RTI at the pre-service level would help prepare teachers to use these methods. Although training in RTI methodology is a basic component of many school districts' staff development, particularly at the elementary level teachers would likely benefit from coaching or mentoring in the use of these practices in the classroom.

The increase in standardized testing and accountability in the past decade has created an environment in which ability differences are emphasized even more than in the past (Urduan & Schoenfielder, 2006). Additionally, efforts to change teacher practices may be undermined if school policies promote certain goal practices (Maehr & Midgley, 1991). For example, the school may implement an honor roll that rewards the top students, a program that encourages competition and provides information about academic ability. Modification of goal practices can be accomplished at the school level as well as the classroom level. Maehr and Midgley (1991) created a plan for working with school leaders that reviews policies that might promote performance goal practices and then implements new policies and practices that reflect a mastery oriented school



environment. By using this type of model, or simply by reducing practices that involve competition or comparison, schools can send a message to teachers and students that they should focus on individual growth and achievement.

### *Implications for Research*

This dissertation focused on two areas of research within goal practice theory. The first examined the reasons teachers may use performance goal practices, while the second examined how these practices affect social relationships. Each of these studies leads to many questions that can be addressed in future research. The first study demonstrated a relationship between teacher stress and the use of performance goal practices. While this is an important finding, future research should be expanded to understand the elements of teacher stress that lead to the use of these practices. In this study, teachers were asked to report the number of students that drained the teacher's energy. This response is a broad view of teacher stress that does not describe what student characteristics make teaching draining, or whether there are other elements of the teaching profession negatively impacting the teacher's energy level. Researchers should take a more in-depth look at teacher stress to understand whether the use of performance goal practices is more impacted by student characteristics such as academic or behavioral difficulties, or whether other aspects of the profession such as a demanding workload, conflicts with administration, or lack of recognition could also have an impact on these practices.

There are also larger issues related to the use of performance goal practices that have not been explored. As referenced above (Urdan & Schoenfelder, 2006; Maehr &

Midgley, 1991), it has been suggested that systemic practices influence teacher use of goal practices. Despite this, there are no studies that examine the role of the school environment in teacher use of either mastery or performance goal practices. Future research should examine the school-wide promotion of social comparison and competition, and study how school practices influence teacher practices. It is possible that school practices will influence teachers differently; for example, novice teachers who are limited in their knowledge of motivational practices and who are eager to please their administrators may adopt practices similar to the school's orientation, while more experienced teachers may prefer practices that are independent of their school's choices. Other factors, including pressures related to accountability and state testing, may also play a role in both school and teacher practices and should be examined.

The second study demonstrates that elementary school children learn about the academic abilities of their peers through the cues given in performance goal practices. This information adds to a growing body of knowledge that peer acceptance is affected by teacher practices and other classroom cues (Hughes & Zhang, 2007; Chang et al., 2007).

Future research should evaluate the extent to which these practices affect students' peer acceptance, particularly for low-achieving students. Recent studies, including the present dissertation, have investigated the effects of teacher and classroom constructs on general aspects of peer acceptance. Trends in research, however, have focused on the specific construct of peer rejection (Buhs, Ladd, & Herald, 2006). Peer rejection is also assessed through sociometric interviews, with nominations of 1 counted

as a measure of who is “liked least” by peers and is considered a more detrimental ranking than simply having low peer acceptance (Coie & Dodge, 1983). Peer rejection has been extensively studied to determine child attributes that contribute to rejection, such as aggression and withdrawal (Ladd, 1999), as well as outcomes of rejected children, such as poor adjustment to school (Buhs & Ladd, 2001) and academic achievement (O’Neil et al, 1997). Because the concerns over the use of performance goal practices relate to their effect on low-achieving students, particularly those who may be afraid of failure in front of their peers, it is important to extend future research to understand the effect of these practices on peer rejection. If these teacher cues lead to increased rejection of low achieving students, they could be at even further risk for school failure.

Additionally, research should continue to understand the variables that could explain the complex relationship between teacher practices and children’s social relationships. Hughes and Zhang (2007) introduced a concept from social psychology called indegree to show that social relationships are affected in classrooms where students were at a greater consensus about their peers’ abilities. Future research could examine the aspects of a classroom that lead to high indegree, and how exactly this construct affects peer perceptions and student relationships. Another variable that may be of interest is peer academic reputation (PAR), another sociometric construct in which students rate their peers on who they believe is the best at subjects such as reading or math as well as overall school work (Hughes, Dyer, Luo, & Kwok, 2009). The cues on academic ability would likely affect PAR, giving higher achieving students increased

reputations but perhaps lowering the reputations of students who do not benefit from these practices. Since PAR has been demonstrated to be positively related to peer acceptance in elementary students (Hughes & Chen, 2011), the connection between performance goal practices and PAR is an important line of study to connect comparison practices and peer relationships. Indegree and PAR represent two possible constructs through which performance goal practices may affect social relationships. It is important to understand how children internalize and interpret teacher behaviors and practices, and how this leads to changes in peer judgments and ultimately decisions about peer acceptance. Future research can lead to a better understanding of this process, which will help schools and teachers create classrooms that will maximize the success of low achieving students.

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