DELIMITING THE ROLE OF PEERS IN PRE- AND EARLY ADOLESCENTS' GOAL PURSUIT: RELATIONS AMONG PEER ACCEPTANCE, SOCIAL RESPONSIBILITY GOALS, AND PERSONAL/MASTERY GOAL ORIENTATION

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Delimiting the role of peers

Running Head: DEVELOPMENT AND MOTIVATION

Delimiting the Role of Peers In Pre- and Early Adolescents’ Goal Pursuit: Relations Among Peer Acceptance, Social Responsibility Goals, and Personal/Mastery Goal Orientation

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Master’s Thesis

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Peers have opportunities to influence students' motivation, including the achievement and social goals they pursue (Pintrich & Schunk, 2002). The present study utilized peer and self-report data from 356 elementary school students (18 grade 4 to 7 classrooms) to explore relations among peer acceptance, social responsibility goals, and personal/mastery goal orientation in pre- and early adolescence. Overall, (a) girls had more peer prosocial goals than boys, (b) preadolescent boys and early adolescent girls had the highest levels of peer acceptance, and (c) preadolescents pursued more personal/mastery goals than early adolescents. Additional differences emerged in terms of the social responsibility goals pre- and early adolescents pursue. These results are discussed, particularly, the importance of promoting social and academic goals during adolescence.
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CHAPTER I

Overview

During the last two decades, sociological, developmental, and educational researchers have posited that pre- and early adolescence are far more significant phases of development than earlier investigators inferred (Berndt, 1979; Berndt & Perry, 1990; McDougall & Hymel, 1998). However, it is only recently that studies have examined differences between pre- and early adolescents (Gavin & Furman, 1989; Wentzel & Caldwell, 1997). In their review, Birch and Ladd (1996) contend that preadolescents assume numerous social/emotional responsibilities (e.g., negotiating the complexities of interpersonal relationships) and educational responsibilities (e.g., performing increasingly difficult academic tasks) that guide the transition to early adolescence. As preadolescents make the transition to early adolescence, they begin to develop relationships with peers that are regarded as more intense, personal, reflective and self-disclosing than peer relations in preadolescence (Berndt, 1982; Patrick, Anderman, & Ryan, 2002). It is during early adolescence that individuals begin to (a) explore their identity, (b) engage in more self-regulated learning (e.g., monitoring progress, evaluating self against a standard), (c) set goals for their future (e.g., going to college or university, deciding on a career), and (c) commit themselves to their future (Goodenow, 1993). The existence of “true” developmental stages has been debated extensively throughout the literature. Theoretically however, developmental stages have helped researchers (Gavin & Furman, 1989; LaFontana & Cillessen, 2002) to better understand how groups of individuals (e.g., pre- and early adolescents) go through life/developmental transitions.

Most researchers (e.g., Hymel, Comfort, Schonert-Reichl, & McDougall, 1996; Midgley, 2002; Wentzel, 2002) agree that individuals' relationships with parents and teachers, as well as peers, make important contributions to development. However, in her theory, Harris (1998)
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contends that, overall, peers play the most central role during development. Although Harris' stance has been met with controversy (see Maccoby, 2002), it has encouraged researchers to further illuminate the role of peers during development. More and more researchers are recognizing and attending to the influential role that peers have during adolescence (Kindermann, 1993; Parkhurst & Asher, 1992; Patrick, Anderman, & Ryan, 2002). For instance, researchers (e.g., Hartup, 1996; Wentzel, 1991b, 1993a, 1994) have concluded that adolescents who are well liked by their peers tend to report liking and engaging in school, and experience school success. Hence, it appears that peer relationships during pre- and early adolescence are important for fostering academic motivation and achievement (Hymel, Comfort, Schonert-Reichl, & McDougall, 1996; Kindermann, 1993; Midgley, Anderman, & Hicks, 1995).

Nevertheless, the existing research on motivation has focused on the relationships between teachers and students rather than those among peers (Roeser, Midgley, & Urdan, 1996). In light of the evidence suggesting that peers are an important aspect of development, researchers must attend to understanding the role of peers relative to students' social responsibility and learning goals.

In an effort to expand the burgeoning literature, a number of researchers (e.g., Asher & Rose, 1997; Wentzel, 1991a, 1993a, 1994) have begun to explore relationships among (a) peer acceptance (i.e., popularity status), (b) social responsibility goals (i.e., the degree to which students adopt behaviours geared towards the social rules/expectations of the classroom environment) and (c) personal/mastery goals (e.g., learning fuelled by personal intellectual development and intrinsic interest) and how they influence pre- and early adolescents' school success. Traditionally, "school success" has been conceptualized as student's final grades and grade point averages as the sole outcome for students. However, the literature reveals that students' goals may be a better indicator of their engagement with the classroom environment.
Delimiting the role of peers (Roeser et al., 1996). The literature has shown that schools have multiple goals for their students including promoting behaviours that nurture students' social relationships. As indicated by some researchers, school success does not merely consist of scholastic achievement (see Wentzel, 2003 for a review). Instead, school success is a combination of scholastic achievement and social competence, including the development, pursuit, and maintenance of adaptive social relationships. To this end, nurturing students' social competence (e.g., social responsibility) is a goal of many schools and research has illustrated that students are successful in school when they have a positive social rapport with teachers and peers (Wentzel, 1994, 2003). With this broader conceptualization of school success, one that includes adaptive social functioning, a deeper understanding of the relationships among peer acceptance, social responsibility goals, and personal/mastery goal orientation should be considered. The present study extends previous literature by examining the relationships among these variables and their differences in pre- and early adolescence.

In general, research has reported that when students move from elementary to middle school (pre- to early adolescence), their adoption of (a) personal task/mastery goals, (b) competence beliefs and (c) value for school related activities decline (L.H. Anderman & E.M. Anderman, 1999; Wigfield & Eccles, 1994). These researchers have regarded this decline as one that is explained (in part) by the classroom environment and the experiences within that environment. Peer relations reflect a variety of experiences in and outside the classroom environment. The declines observed in previous research may illustrate that the experiences students have in peer relationships can influence their perceptions and experiences in the classroom environment, including their academic achievement, values, and goals (Berndt, Laychak, & Park, 1990; Kindermann, 1993).
In addition, researchers (Roeser et al., 1996) have reported that increases in students’ mastery/task goal orientation were associated with students’ perceptions of classroom personal/mastery goal structures (e.g., investing effort and strategy to improve is important) and ability goal structures (e.g., doing better than others and getting things right is important) as well as students’ sense of school belonging (e.g., students’ feelings of relatedness and psychological membership and identity in a supportive community). Furthermore, L.H. Anderman and E. M. Anderman (1999) found that increases in students’ ability goal orientation were positively associated with students’ perceptions of an ability goal structure, relationship, and status goals. Moreover, they found that ability goal orientation was negatively associated with students’ sense of school belonging.

Although positive relations between personal/mastery goals and social responsibility goals have been found, the interaction of these goals is not well understood (Wentzel, 1993b). Some studies have examined students’ motivational orientations in relation to aspects of the peer group. The literature indicates that the degree to which students endorse their social status goals (e.g., a desire for visibility, prestige in a large group of peers) is a consistent predictor of school motivation. In terms of learning and achievement goals, researchers (L.H Anderman & E.M. Anderman, 1999) have found that from grade five to six, students who pursued social status goals also reported pursuing performance goals. One reason for this finding could be that students who compare their social status to that of their peers may, in fact, extend that performance based framework to their academic pursuits such that they adopt ability goals. In terms of students’ affective reaction to school, Anderman and her colleague have reported that students’ social status goals interact with students’ perceptions of a classroom mastery goal structure to predict change in negative affect toward school (e.g., anger, frustration, and anxiety). Given that students’ perceptions of classroom goal structures have been found to mirror their
goal orientations (Roeser et al., 1996), research should attend to understanding how both social responsibility and personal/mastery goal structures relate to peer acceptance in pre- and early adolescence.

As described below, several limitations have been observed in research linking peer acceptance, social responsibility, and personal/mastery goals. First, very few studies (e.g., LaFontana & Cillessen, 2002) have examined differences between pre- and early adolescents' sociometric nominations of peer acceptance in relation to social responsibility and personal/mastery goals (Wentzel, 1993b). Indeed much of the research (e.g., Wentzel, 1994) has focused on examining peer acceptance, personal/mastery and social responsibility goals in isolation (e.g., mastery goal orientation or peer acceptance) and/or with one age group (e.g., pre- or early adolescents).

Second, many of the previous studies (e.g., Roeser et al., 1996) that have employed social-cognitive motivational frameworks have focused on relationships that students have with teachers rather than peers when examining personal/mastery and performance goals. Although students' relationships with teachers are important during pre- and early adolescence (Wentzel, 2002), relationships that exist between and among classmates during these phases of development are critically important for understanding students' pursuit of social and academic goals (Kindermann, 1993; Pintrich & Schunk, 2002).

Third, although researchers (e.g., Patrick et al., 2002; Wentzel 1993a) have illustrated the existence of social goals in the classroom environment and the relationship of social goals to learning goals, very few studies (e.g., Pintrich, 2000; Wentzel, 1993b) have examined students' pursuit of multiple learning goals (e.g., personal/mastery and performance goals) as well as students' pursuit of social (e.g., making friends) and academic goals (e.g., learning something new). Recently, Pintrich (2000) reported that students who approached both mastery and
performance oriented goals earned higher grades than those who approached either mastery or performance goals. In her research, Wentzel (1993b) has found that early adolescents who pursued both academic (e.g., mastery goals) and social goals tended to earn higher grades than students who did not actively pursue either social or academic goals. The overarching inference from the results of Pintrich (2000) and Wentzel (1993b) is that researchers must examine students’ pursuit of multiple classroom goals (i.e., both academic and social) when investigating students’ school adjustment. To date, few studies have examined differences between pre- and early adolescents’ pursuit of both social and academic goals.

The fourth limitation that exists in previous research concerns the transition some students make from elementary to middle school. The extant research has suggested that the transition from elementary to middle school results in a deterioration of students’ personal/mastery goals (Midgley et al., 2002). In fact, the literature has often referred to elementary schools as “neighbourhood schools” where students spend most of their time with a single teacher and group of peers (Midgley et al., 2002). Elementary schools have been liked to greater feelings of belonging, mastery goal structures and strong teacher-student relationships. By contrast, middle schools are described as “feeder schools” where students spend time with a number of different teachers and peers. Unlike elementary schools, the literature shows that middle schools have been linked to declines in students’ feelings of belonging, weaker perceptions of pedagogical caring and ability goal structures. Based on the descriptions of elementary and middle schools, the present study examined whether or not differences emerge between pre- and early adolescents’ personal/mastery goals if early adolescents stay in elementary school. Few (if any) studies have examined differences between pre- and early adolescents’ peer acceptance, social responsibility, and personal/mastery goals in elementary schools. Similarly, the present study explores the possibility that pre- and early adolescents’
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perceptions of personal/mastery goals may not differ and, in fact, the decline of personal/mastery goals slows when early adolescent students stay in elementary schools.

Summary

As indicated by Pintrich and Schunk (2002), peer networks (i.e., large groups of similar individuals) have the opportunity to exert considerable influence on students' academic motivation by providing individuals access to group interactions and modeling the behaviours that guide those interactions. As students develop, peer-oriented goals (e.g., acceptance) become increasingly important and sometimes students' academic and social goals conflict. Students may sacrifice academic or social goals if they think they cannot coordinate their attainment (Pintrich & Schunk, 2002). In fact, research has illustrated that members of peer groups become similar over time such that individuals tend to affiliate with those who share their common interests (Berndt, 1999). Overall, research (e.g., Kindermann, 1993) shows that the peer group is an important context for understanding students' pursuit of learning and social goals across development. As pre- and early adolescents develop, their pursuit of social and learning goals differs. Therefore, the present study served the following purposes.

First, given the role that peers play in development, this study examined relations among pre- and early adolescents' popularity status (i.e., peer acceptance as nominated by classmates), social responsibility goals, and mastery goals by asking four major research questions:

1. What are the relations among peer acceptance, social responsibility, and personal/mastery goals in pre- and early adolescence?
2. Do gender and developmental stage differences exist on the peer acceptance, social responsibility and personal/mastery goals variables?
3. How do social responsibility and personal/mastery goals predict peer acceptance in pre- and early adolescence?
4. Which constructs differentiate pre- and early adolescents?

The second purpose of this study was to inform social cognitive theories of motivation by illuminating the role that peer status plays in pre- and early adolescents’ adoption of both social responsibility and personal/mastery goals. More clearly, by examining peer acceptance in relation to both social responsibility and mastery goals, this study discusses how: theories of motivation could include students’ popularity status and social responsibility goals, and enhances researchers’ understanding of how pre- and early adolescents’ peer status is related to their pursuit of social responsibility and personal/mastery goals.

Reviewing Theories and Constructs

Social Cognitive Theories of Motivation: Achievement Goal Theory Revisited

Social cognitive theories of motivation continue to be a lens through which to examine students’ perceptions of goals in the classroom environment. Social cognitive theories are contextual views that concentrate on illuminating the reciprocal relationship among learner’s characteristics, behaviours, and environmental influences and their cumulative influence on the cognitions, behaviours, feelings and goals students adopt (Bandura, 1986; Pintrich & Schunk, 2002). Achievement goal theory is a prominent social cognitive theory of motivation that has dominated the study of educational psychology (Linnenbrink & Pintrich, 2002; Midgley, 2002; Roeser, et al., 1996; Pintrich & Schunk, 2002). In accordance with social cognitive theories of motivation, achievement goal theory posits that two types of goals fuel students’ desires for learning: personal/mastery goals (i.e., outcomes that reflect students’ desires to achieve for personal intellectual development) and performance/relative ability goals (i.e., outcomes that reflect students’ desires to do well, often in comparison to others).

Recently, achievement goal theory has been a source of concern among researchers for two reasons. First, it has been suggested by Meyer and Turner (2002) and Linnenbrink and...
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Pintrich (2002) that the constructs that comprise achievement goal theory do not accurately reflect the role that emotion (e.g., feelings of belonging, relatedness) play in learners’ adoption of achievement goals. That is, current cognitive conceptions of motivation are focused on learners’ thoughts and beliefs (Meyer & Turner, 2002); the role of emotion has not earned its place in achievement goal theory. Recently, Roeser and his colleagues integrated social and emotional development research (e.g., Battistich, Solomon, Kim, Watson, & Schaps, 1995; Goodenow, 1993) with research on achievement goal theory to examine how students’ feelings of belonging (relatedness) related to the educational environment.

Roeser et al., (1996) concluded (a) that students’ relationships with teachers (in particular) and their adoption of learning goals (e.g., task or mastery goals) contribute to students’ academic achievement and (b) that early adolescents create meaning in their school environment based on their experiences in achievement settings and their sense of relatedness in the classroom. Convincingly, these results suggest that students’ feelings of belonging in the classroom contribute to the experiences students have with the academic goals they adopt and, ultimately, their engagement with their academic achievement. It stands to reason, however, that the feelings of belonging (or lack thereof) students experience in the classroom go well beyond teacher-student relationships and include the relationships students experience with one another (i.e., peer relationships).

The second concern researchers have is that social responsibility goals are related to students’ achievement goals (Wentzel, 1991a, 1991b, 1993a, 1993b, 1994), yet their contribution to and interaction with academic goals (a) is not well understood and (b) seems to rest beyond the periphery of achievement goal theory and, generally, social cognitive theories of motivation. Interestingly, scholars (e.g., Midgley, 2002; Pintrich & Schunk, 2002; Urdan & Maehr, 1995; Wentzel, 1991a, 1993a) have demonstrated that social responsibility goals can exist at the
classroom level where students can perceive and ultimately adopt adaptive ways of behaving in a socially responsible manner in and outside of the classroom. In fact, (a) students who behave responsibly tend to do better academically and (b) students who pursue social responsibility goals and either personal/mastery or performance goals do better academically than students who pursue only personal/mastery or performance goals (Wentzel, 1993b).

Again, it stands to reason that social cognitive theories of motivation should better reflect the idea that social responsibility goals are perceived (by students) in the school and in the classroom. Towards this end, and given the empirical evidence for students’ pursuit of multiple goals (e.g., Pintrich, 2000; Wentzel, 1993a; Urdan & Maehr, 1995), it is suggested that social responsibility goals be examined in relation to personal/mastery and/or performance goals.

As summarized by Covington (2002):

"[A]lthough we are relatively well informed about the role of academic goals in motivating the achievement of individuals, our understanding of how social goals enter into the process lags behind" (p.286).

Clearly, one major limitation of social cognitive theories of motivation is that they seem to overlook relationships that exist among peer acceptance, social responsibility and mastery goals. As illustrated in Figure 1, the present study incorporated both peer acceptance and social responsibility goals to investigate relationships among peer acceptance, social responsibility and personal/mastery goals in pre- and early adolescence. By examining relationships between two school dimensions, relatedness and personal goals, this study examined relations among peer acceptance, social responsibility, and personal/mastery goals in pre- and early adolescence and differences between pre- and early adolescents in the ways peer acceptance, social responsibility goals, and personal/mastery goals relate.
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School Dimensions

- Relatedness
  - Peer Acceptance

→

- Personal Goal Adoption
  - Social Responsibility Goals
  - Personal/Mastery Goals

Figure 1. Theoretical model outlining relations among peer acceptance, social responsibility and personal/mastery goals in pre- and early adolescence.

Peer Acceptance

Within the past 20 years, researchers have built a formidable knowledge base that shows the importance of positive peer relations, particularly peer acceptance (i.e., the degree to which classmates like and include each other in classroom activities), in students' school experiences. Sociometric theory contends that children's peers are significant contributors to later development; thus, sociometric measures have been employed most frequently to study how peer relations contribute to development (Asher, Singleton, Tinsley, & Hymel, 1979; Kindermann, 1993; Parker & Asher, 1987; Schonert-Reichl, 1999).

The reliability and validity of sociometric measures (e.g., roster and rating scales) have come under intense scrutiny by research methodologists (e.g., Johnson & Ironsmith, 1994). Importantly, results of these studies have consistently demonstrated that sociometric measures are reliable and valid across development (Hymel, Vaillancourt, McDougall, & Renshaw, 2001; Terry, 2000). A review of the literature reveals some of the ongoing difficulties that researchers of peer relations have faced including understanding the direction of the complex associations among peer relations (e.g., Boivin, & Hymel, 1997) and their relationships to other social (e.g., friendships), emotional (e.g., empathy, sharing, helping) and educational factors (e.g., mastery and relative ability goal orientation, academic self-efficacy) that accompany development.
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A plethora of research (e.g., LaFontana & Cillessen, 2002; Schonert-Reichl & Hymel, 1996; Wentzel, 1993a, 1998) has identified a number of correlates of peer acceptance, including prosocial behaviours (e.g., students who cooperate), antisocial/aggressive behaviours (e.g., students who start fights) and social responsibility goals (e.g., helping classmates learn new things). Overlooked in studies that examine one or two aspects of development are emerging behavioural nuances that transform during these periods and their potentially different relationship to students’ academic and social motivations. Interestingly, Kindermann (1993) concluded that preadolescents’ peer groups can promote or undermine children’s motivation in school. Kindermann (1993) found that students’ associated with peers who shared similar motivation orientations and, during the school year, students’ peer groups reorganized in a way that preserved their motivational composition.

Recently, motivation researchers have highlighted the increasingly important role that students’ feelings of belonging assume in the classroom environment. Students’ need to belong is fundamental for understanding motivation (McDougall, Hymel, Vaillancourt, & Mercer, 2001; Pintrich & Schunk, 2002). Toward this end, investigators have illustrated that students who are well liked by their classmates and relate well with others tend to indicate that they enjoy school and experience academic success (Berndt, 1999; Wentzel, 1991a). In contrast, students who have negative peer experiences (e.g., peer rejection) do not thrive as well academically or socially. These individuals are at a higher risk for dropping out (Hymel, et al., 1996). Clearly, in order to understand students’ motivation towards learning, the consideration of social and emotional factors is essential (Midgley, 2002).

Overall, the literature indicates that few studies have illustrated how peer acceptance is related to students’ social responsibility and personal/mastery goals in pre- and early adolescence. Peer acceptance has been strongly linked to early adolescents’ social responsibility
goals (Wentzel, 1993a, 1994). However peer acceptance is not as well linked to personal/mastery goals (Wentzel, 1993a) in pre- or early adolescence. Toward this end, studies that compare pre- and early adolescents are scant, despite the important methodological and theoretical implications they may have for (a) understanding relations among these constructs (i.e., peer acceptance, social responsibility and personal achievement goals) and more generally, (b) development. Taken together, it is imperative that researchers obtain a better understanding of how relations among peer acceptance, social responsibility and mastery goals differ during pre- and early adolescence.

**Social Responsibility Goals**

Included in the present study is an investigation of how social responsibility goals, defined as behaviours that adhere to the social rules (e.g., share, help, cooperate) and role expectations that govern the educational environment (Wentzel, 1993a), are related to students’ peer acceptance and personal/mastery goals. Social responsibility goals contain two dimensions of behaviour, prosocial behaviour and responsibility (compliance) behaviour. Students who behave prosocially might say they “always try to share what they’ve learned with their classmates.” Students who behave in a responsible manner might say they “always try to keep secrets that other kids have told them” (Wentzel, 1994). Essentially, social responsibility goals require positive forms of engagement, including cooperating and showing respect for others. Unlike academic goals (e.g., personal/mastery goals) social responsibility goals reflect students’ desires to achieve particular social outcomes, such as being considerate of and caring about others (Wentzel, 1991b, 1998).

The development of individuals’ sense of social responsibility is a concern for parents and teachers. Social responsibility conveys the values and expectations of positive adaptive functioning beyond the classroom environment (Wentzel, 1991a, 1993a, 1994). In her review,
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Wentzel (1991a) indicates that individuals' comprehension of and adherence to social expectations is essential for fostering and sustaining relationships within the peer group. Toward this end, investigators have found (a) adolescents' identification with and conformity to peer groups increases dramatically during pre- and early adolescence (Berndt, 1979; Midgley et al., 2002; Wentzel, 1991b, 1994), (b) adolescents actively pursue social goals to establish and maintain relationships with others (Ford, 1982), and (c) middle school students pursue prosocial and responsibility goals more frequently than learning goals (Wentzel, 1993b).

Social responsibility has been linked to academic performance (Parker & Asher, 1987; Wentzel, Weinberger, Ford, & Feldman, 1990), suggesting that the degree to which students learn and behave responsibly are causally related. Students who learn to behave responsibly can (in part) create a classroom environment that promotes learning and, more generally, cognitive development. In contrast, irresponsible classroom behaviour can contribute to classroom chaos. Often, this chaos tends to (a) stress students' interpersonal relationships and (b) place children at a greater risk for academic failure. From a motivational perspective, the value teachers place on socially responsible classroom behaviour tends to influence their opinions of students (Wentzel, 1993a). Students' beliefs about socially responsible behaviours in the classroom environment are communicated by teachers (Wentzel, 1991b). Further corroborating this contention is research suggesting that even when students are in Grade 2 their classroom context greatly affects their beliefs about learning, goal orientations, expectations for success and subsequent engagement in school work (Perry, 1998). Together, research indicates that social responsibility goals make a great contribution to the classroom environment and that their study is as important as other classroom goals (e.g., personal/mastery goals). Despite the interesting relationship that exists among peer acceptance, social responsibility and mastery goals, more research is needed to illustrate the critical role these constructs play in both pre- and early adolescence.
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**Personal/Mastery Goal Orientation**

Arguably, a survey of the literature reveals that studies (e.g., Wentzel, 1991a, 1991b, 1994) have repeatedly relied on students' grades or grade point averages as the sole indicator of school success. Recent findings challenge this idea suggesting that students' achievement goal orientations provide better indicators of students' engagement with the classroom environment, including their use of higher level cognitive strategies and positive school behaviour (Roeser et al., 1996). In general, achievement goals reflect the academic outcomes students are trying to attain (Ames, 1992; Dweck & Legget, 1988). As suggested previously, achievement goal theory frames students' achievement behaviours in terms of two primary goal orientations, *mastery* and *performance/ relative ability goal orientation* (Dweck & Legget, 1988; Linnenbrink & Pintrich, 2002). Across the literature, *personal/ mastery goal orientation* is conceptualized as the degree to which students adopt learning geared toward intrinsic interest, personal intellectual development and strategy use (Linnenbrink & Pintrich, 2002; Perry, 1998; Roeser et al, 1996). High mastery goal seekers usually exhibit high efficacy for learning and attribute personal failure to circumstances within their control. In contrast, *performance or relative ability goal orientation* reflects learning that values social comparison and competition with others. When students who have performance goals do well they can usually sustain positive views of self; however, when students who adopt performance or relative ability goals do not perform well, they sometimes express less positive views of self and use surface-level cognitive strategies (Linnenbrink & Pintrich, 2002; Perry, 1998; Roeser et al., 1996).

Although the Personal Achievement Goals Scale (Roeser et al., 1996) is relatively new to the motivation literature, it adopts achievement goal theory and examines students' personal/mastery achievement goals in pre- and early adolescence. Motivation researchers (e.g., Covington, 1992; Eccles & Midgley, 1989; Perry, 1998, Perry & VandeKamp, 2000; Roeser et
al., 1996) have suggested that understanding students’ achievement goals not only provides researchers with insight into students’ academic success but can (in part) illuminate students’ perceptions of themselves (i.e., feelings of academic self-efficacy; in-school behaviour).

In fact, personal/mastery goal structures have been widely linked to all levels of education (i.e., elementary school and university) and development (i.e., young children, pre- and early adolescents, adults) and common correlates of personal/mastery goal orientation include prosocial behaviours, high self-efficacy, positive/satisfying peer relations and social responsibility goals (Lafontana & Cillessen, 2002; Perry, 1998; Wentzel, 1991a, 1991b, 1993a, 1994, 1998; Wentzel & Caldwell, 1997).

Summary of Purpose, Questions, and Hypotheses

The present study examined relations among peer acceptance, social responsibility and personal/mastery goals in pre- and early adolescence. Because previous research (e.g., Gavin & Furman, 1989; Lafontana & Cillessen, 2002) has demonstrated that pre- and early adolescence can be defined by grade level, the present study separated pre- (grade 4 and 5) and early (grade 6 and 7) adolescents to examine four major research questions.

First, what are the relationships among peer acceptance, social responsibility and personal/mastery goals in pre- and early adolescence? Based on previous research (e.g., Wentzel, 1993a, 1994), it was hypothesized that peer acceptance would be significantly positively associated with social responsibility and personal/mastery goals in pre- and early adolescence. Given that students’ adoption of personal/mastery goals tends to decline in early adolescence (L.H. Anderman & E.M. Anderman, 1999) and features of the peer group become more important (Berndt, 1979; Gavin & Furman, 1989), it was expected that peer acceptance would be significantly positively associated with personal/mastery goals in preadolescence, but significantly negatively associated with personal/mastery goals in early adolescence.
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Second, do gender and developmental stage differences exist on the peer acceptance, social responsibility goals (i.e., peer prosocial, academic prosocial, peer responsibility, academic responsibility) and personal/mastery goals variables? In accordance with previous literature it was expected that both pre- and early adolescent girls would score significantly higher than pre- and early adolescent boys on the peer prosocial goals variables.

Third, how do social responsibility and personal/mastery goals predict peer acceptance in pre- and early adolescence? Given that developmental differences have been observed between pre- and early adolescents’ perceptions of the peer group, it was expected that the degree to which social responsibility and personal/mastery goals predicted peer acceptance would be different for pre- and early adolescents. In addition, it was expected that students’ personal/mastery goals would contribute most to researchers’ understanding of peer acceptance in preadolescence and social responsibility goals would contribute most to researchers’ understanding of peer acceptance in early adolescence.

Finally, which constructs differentiate pre- and early adolescents? It was expected that, together, peer acceptance, social responsibility goals and personal/mastery goals would differentiate pre- and early adolescents.
Participants

Data were drawn from students attending 18 schools that participated in the pre-test of a larger study that examined the effectiveness of a primary preventative intervention program. All 356 participants were elementary school students (Range = 8-11 years; $M = 9.67; SD = 0.61$) from 18 grade four through grade seven classes in a large Western Canadian city. Specifically, there were 51 student participants in grade four (24 girls; 27 boys), 96 in grade five (54 girls and 42 boys), 143 participants in grade six (62 girls and 81 boys), and 66 participants in grade seven (30 girls and 36 boys). Students’ first language was obtained as an indicator of ethnicity and, in total, 60.1% of students reported an Asian language as their first language, 31.5% of students reported that their first language was English, and 7.9% of students reported their first language as one other than English or any of the Asian languages. Participants in the present study were predominantly from low to middle class families. To obtain parental consent, a letter that described the study was distributed to students by their classroom teachers. In addition to parent consent, student assent was obtained and of those students recruited, 88% participated in the present study.

Materials

Students received questionnaire packages containing (a) a demographic questionnaire, (b) a measure assessing peer acceptance (Parkhurst & Asher, 1992; Schonert-Reichl, 1999; Wentzel & Erdley, 1993), (b) a revised measure of Wentzel’s (1994) Social Responsibility Goals Scale, and (c) the Personal Achievement Goals Scale (Roeser et al., 1996). Written instructions assured participants confidentiality concerning their answers.
Demographics Questionnaire. The demographic questionnaire contained a total of six questions. Four questions asked students to indicate their name, gender, age, birth date and grade. The last two questions asked students about their family background, whether or not they had any brothers or sisters and the first language they learned at home.

Peer Acceptance. The level of peer acceptance (Parkhurst & Asher, 1992; Schonert-Reichl, 1999; Wentzel & Erdley, 1993) was obtained by asking students to circle the names of any of their classmates who fit the behavioural description, “Students who you would like to be in school activities with” (see Appendix). Students were provided with a list of their classmates and asked to respond by circling as many or as few classmates as they wished (Parkhurst & Asher, 1992).

Peer acceptance was computed as a proportion by tallying the number of nominations a student received in her/his class and dividing by the number of students in the class who participated in the nomination process (Parkhurst & Asher, 1992; Schonert-Reichl, 1999). Given that nominations were not restricted to same gender classmates, peer acceptance proportion scores were computed for (a) boys’ nominations of classmates and (b) girls’ nominations of classmates. In the present study, a composite peer acceptance score was utilized. This score was obtained by computing the average of boys’ and girls’ classmate nomination proportion scores (Schonert-Reichl, 1999).

In accordance with previous literature (Wentzel, 1993a, 1994), an arcsine square root transformation was applied to the peer acceptance proportion scores. The arcsine square root transformation is applied to peer acceptance scores in order to normalize skewed distributions and increase power. However, one major limitation of using transformed scores is that they are difficult to interpret (Tabachinick & Fidell, 2001). In the present study, the distribution of the peer acceptance proportion scores was fairly normal. However, as a method of verification, the
analyses performed in the present study were computed with and without the arcsine square root transformation. Given that the results obtained from using both the raw and the transformed scores were essentially the same, the present study reports the results using the raw proportion scores of peer acceptance for their ease of interpretability (Tabachnick & Fidell, 2001).

**Social Responsibility Goals.** A revised measure of Wentzel’s (1994) Social Responsibility Goals Scale consisted of 10 questions that examined behaviours that adhere to the social rules and role expectations that govern the educational environment. There are two main dimensions of social responsibility goals: prosocial goals and responsibility (compliance) goals. The prosocial goals dimension is comprised of four questions that examine peer prosocial goals (e.g., “How often do you try to cheer someone up when something has gone wrong?”) and three questions that tapped academic prosocial goals (e.g., “How often do you try to share what you’ve learned with your classmates?”). Students responded to all items on the revised Social Responsibility Goals Questionnaire, by circling “often” (two points), “sometimes” (one point) or “never” (zero points). In the present study, Cronbach’s alpha for the peer prosocial goals and academic prosocial goals subscales were computed at .66 and .64, respectively.

The responsibility goals dimension of social responsibility goals is comprised of both peer responsibility and academic responsibility goals. The peer responsibility subscale had two questions that examined students’ willingness to comply with the requests of others (e.g., “How often do you try to keep promises you’ve made to other kids?”) and the academic responsibility subscale had one item to examine students’ willingness to comply with the requests of teachers; specifically, “How often do you try to do what your teacher asks you to?” Cronbach’s alpha for the peer responsibility subscale was computed at .69. To obtain scores on the dimensions of social responsibility goals (e.g., peer prosocial goals, academic prosocial goals, peer
responsibility goals, academic responsibility goals), the item(s) that represented each dimension of social responsibility goals were averaged.

*Personal/Mastery Goal Orientation.* Personal/mastery goal orientation was assessed using the Personal Achievement Goals Scale (Roeser et al., 1996), which consisted of five questions keyed to the characteristics of a personal/mastery achievement motivational goal orientation (e.g., “The main reason I do my work in school is because I like to learn”). Students are asked to rate how much each statement describes them using a Likert scale ranging from 1 (not at all like me) to 5 (always like me). Students received a score of 1-5 per item and a summed score for all items. Scores on this scale can range from 5 (low mastery goal orientation) to 25 (high mastery goal orientation) and Cronbach’s alpha for this subscale was computed at .82.

*Procedures*

In the Fall (2001) pre-test data were gathered in students’ classrooms during two 45-minute group-testing sessions (held in the morning or afternoon) two weeks prior to receiving the intervention program. In both testing sessions, students were told that the information they provided on the questionnaires would be kept confidential and they were free to stop at any time. In both testing sessions, two research assistants distributed the questionnaire packages and students were (a) guided through the completion of all demographic information and (b) asked to complete the peer nomination measure (Parkhurst & Asher, 1992; Schonert-Reichl, 1999; Wentzel & Erdley, 1993) by themselves to avoid the possibility that response bias may occur. In both testing sessions, questionnaire response scales were explained to students and the nomination questionnaire was the only questionnaire not read aloud to participants. At the end of each session, students returned their completed questionnaires to the research assistants.
CHAPTER III

Results

Missing Data

For the analyses reported below, students’ data were included if at least 80% of each self-report questionnaire was completed. In total, six participants were missing one answer from either the revised measure of Wentzel’s (1994) Social Responsibility Goals Questionnaire or the Personal Achievement Goals Scale (Roeser et al., 1996). For the analyses below, missing data from the self-report questionnaires was replaced with the average group score (pre- or early adolescents) of the variable item (Tabachnick & Fidell, 2001). Given that the few missing values were scattered throughout a large data set, the missing data does not pose a serious threat to the generalizability of the results (Tabachnick & Fidell, 2001).

Results of the present study are reported in four sections that correspond to the research questions outlined above and include: (a) descriptive and correlational analyses (b) univariate analyses (c) multiple regression analyses and (d) multivariate analyses.

Relations Among Peer Acceptance, Social Responsibility and Personal/Mastery Goals

To provide a context for the analyses described below, means and standard deviations for the six variables (peer acceptance, peer prosocial goals, academic prosocial goals, peer responsibility goals, academic responsibility goals, personal/mastery goals) are provided for pre- and early adolescents in Table 1.

Pearson product-moment correlations were computed (see Table 2) to examine the relations among peer acceptance, social responsibility goals (i.e., peer prosocial goals, academic prosocial goals, peer responsibility goals, academic responsibility goals) and personal/mastery goals in pre- and early adolescence. The hypothesis that the dimensions of social responsibility goals would be positively associated with peer acceptance in both pre- and early adolescence was
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supported. In fact, the second column of Table 2 indicates that peer acceptance was significantly positively associated with (a) academic prosocial goals in early adolescence and (b) peer responsibility goals and academic responsibility goals in both pre- and early adolescence. Also, the hypothesis that peer acceptance would be positively and negatively associated with personal/mastery goals in pre- and early adolescence, respectively, was not supported. More clearly, no significant positive relationship was observed between peer acceptance and personal/mastery goals in preadolescence, and peer acceptance was significantly positively associated with personal/mastery goals in early adolescence. Effect sizes for the correlations described above as well as subsequent correlations should be considered using Cohen’s (1992) criteria where (a) $r = 0.1$ (small effect), (b) $r = 0.3$ (medium effect), and (c) $r = 0.5$ (large effect).

The dimensions of social responsibility goals, located in the middle columns of Table 2, were all significantly positively correlated for both pre- and early adolescents and the highest correlation was between the peer prosocial and academic prosocial dimensions of social responsibility goals. Also, statistically significant differences were observed between pre- and early adolescents on the (a) peer prosocial and peer responsibility goals correlation and (b) academic prosocial and peer responsibility goals correlation.

Finally, the last row of Table 2 shows that significant positive correlations were found among the personal/mastery goals variable and peer prosocial, academic prosocial, and academic responsibility goals variables for both pre- and early adolescents. However, personal/mastery goals were only significantly positively associated with peer responsibility goals in preadolescence.

Effects of Gender and Developmental Stage

Univariate analyses were used to examine gender and developmental stage (i.e., pre- and early adolescence) differences on the peer acceptance, social responsibility, and personal/mastery
goals variables. Specifically, the scores on the (a) peer acceptance, (b) peer prosocial, (c) academic prosocial, (d) peer responsibility, (e) academic responsibility, and (e) personal/mastery goals variables were used to conduct a series of four 2 (gender) X 2 (developmental stage) factorial ANOVAs with a Bonferroni corrected Type I error rate of .01 \( \cdot \) .05/5, for each dependent variable (Huberty & Morris, 1989). Results of these analyses are presented in Table 3.

First, results indicated a significant interaction of gender and developmental stage on the peer acceptance variable with preadolescent boys scoring higher than preadolescent girls and early adolescent girls scoring higher than early adolescent boys, \( F(1, 355) = 8.85, p = .003 \), corresponding to a small effect, \( \eta_p^2 = .03 \). Second, there was a significant main effect of gender for peer prosocial goals, \( F(1, 355) = 14.48, p < .001 \), corresponding to a small effect, \( \eta_p^2 = .04 \), with girls scoring higher than boys. No statistically significant main effect of developmental stage was found on the peer prosocial goals variable. Third, there was a significant main effect of developmental stage for personal/mastery goals, \( F(1, 355) = 9.91, p = .002 \), with a small effect, \( \eta_p^2 = .03 \). Preadolescents scored higher on the measure of personal/mastery goals than early adolescents. This finding did not support the hypothesis that early adolescents who stayed in elementary schools would not experience the decline in mastery goals reported in the literature. Again there was no statistically significant main effect of gender observed on the personal/mastery goals variable. Finally, there were no statistically significant effects of gender or developmental group on the peer responsibility goals, academic responsibility goals, and academic prosocial goals variables.

The results of the ANOVAs show that gender plays a critical role in the relationships among the variables. Therefore, gender was included in the multiple regression analyses described below.
Relations of Social Responsibility and Personal/Mastery Goals to Peer Acceptance

Two multiple regression analyses were computed to determine how social responsibility and mastery goals relate to peer acceptance in pre- and early adolescence. The regression model tested in the present study employed the raw proportions of peer acceptance as the criterion variable and the continuous forms of the peer prosocial, academic prosocial, peer responsibility, academic responsibility, personal/mastery goals and the categorical variable gender as predictor variables for pre- and early adolescents.

Results of the multiple regression analyses were statistically significant for pre- and early adolescents, $F(6, 140) = 4.55, p < .001$, representing a medium effect size (Cohen, 1992), $R^2 = .163$, and $F(6, 202) = 3.45, p = .003$, representing a small-to-medium effect size $R^2 = .093$, respectively (for a review of effect sizes see Kirk, 1996). The regression model fit for preadolescents and early adolescents accounted for 16.3% and 9.3% of the variation in peer acceptance, respectively. To further examine how the social responsibility goals and personal/mastery goals variables combine to relate to peer acceptance, variable importance was computed using the Thomas-Hughes-Zumbo (1998) index. As Thomas and his colleagues state, variable importance is computed as a product of the standardized beta weight of a predictor and the corresponding predictor criterion correlation. The product is then divided by the total $R$ square for the regression model. The value obtained from the calculation described above is the proportion of the model $R$ square attributed to that predictor. According to Thomas-Hughes-Zumbo (1998), a predictor variable is considered important if the partitioned value meets the minimum value for the model (i.e., $< \frac{1}{2} p$, $p =$ number of predictors in the model). That is, the partitioned value must be greater than or equal to that minimum value for the regression model to be considered important. To allow for a direct comparison across the two developmental groups the same multiple regression model was fit to pre- and early adolescents (with all predictors) and
the Thomas-Hughes-Zumbo (1998) index was used to investigate the relative variable importance for each of the (a) predictor variables and (b) developmental groups.

In the present study, variable importance was determined for the multiple regression model (i.e., peer prosocial, academic prosocial, peer responsibility, academic responsibility, personal/mastery goals) tested for pre- and early adolescents when peer acceptance was the criterion variable. The minimum value determined for variable importance in the regression model tested above was .1 and Table 4 shows that the important predictors of peer acceptance among preadolescents are gender, peer responsibility, and academic responsibility goals. These variables accounted for 58%, 19%, and 18% of the variation, respectively. By contrast, Table 4 shows that among early adolescents, the important predictors of peer acceptance are peer responsibility, academic prosocial, academic responsibility and mastery goals. They accounted for 37%, 31%, 22%, and 18% of the variation, respectively.

Together, results support the hypothesis that differences exist when peer acceptance is predicted from the dimensions of social responsibility goals and personal/mastery goals for pre- and early adolescents. When preadolescents determine students' peer acceptance, gender is the dominant variable, followed by peer and academic responsibility goals. By contrast, results suggest that for early adolescents peer acceptance is dominated by peer responsibility followed by academic prosocial, academic responsibility and then personal/mastery goals. Together, these findings indicate that the dimensions of social responsibility goals are important predictors of peer acceptance in both pre- and early adolescence and that differences on the dimensions of social responsibility goals exist between pre- and early adolescents.

The multiple regression analyses allow one to compare the present findings to the established research literature indicating that peer acceptance is related to the dimensions of social responsibility goals in early adolescence (Wentzel, 1994). In addition to corroborating
previous research, the present study suggests that peer acceptance is related to both social responsibility and mastery goals in pre- and early adolescence. Nevertheless, researchers have indicated that in school environments many variables are forced to coexist. Therefore, this study examined peer acceptance, social responsibility goals, and personal/mastery goals variables together.

**Differentiating Pre- and Early Adolescents**

Designating pre- and early adolescence as the grouping variable, a (multivariate) descriptive discriminant function analysis was employed to examine how peer acceptance, social responsibility and mastery goals variables differentiate pre- and early adolescents. The discriminant function analysis allowed for the investigation of systemic relations among the gender, peer acceptance, peer prosocial goals, academic prosocial goals, peer responsibility goals, academic responsibility goals and personal/mastery goals variables (Tabachnick & Fidell, 2001). As suggested above, relationships among the social responsibility and personal/mastery goals variables are better representative of the school environment where variables are forced to coexist.

Results indicated that the hypothesis that peer acceptance, social responsibility and personal/mastery goals variables would differentiate pre- and early adolescents was supported and a statistically significant relationship was observed between pre- and early adolescence and the latent variable, comprised of personal/mastery goals, peer responsibility goals, gender, and peer prosocial goals, $\chi^2(7) = 26.49, p < .01$, canonical correlation of .270, representing a medium effect size (Cohen, 1992). The descriptive discriminant analysis demonstrated that the variables, when taken in combination, correctly classified 60.1% of students as pre- and early adolescents.
To further examine differences between pre- and early adolescents on the variables gender, peer acceptance, dimensions of social responsibility goals and personal/mastery goals variables, variable importance was computed using Thomas and Zumbo's (1996) parallel discriminant ratio coefficients (DRC). The parallel DRC allows one to order the variables in terms of their importance in the model, akin to the variable ordering procedures described in the multiple regression analyses. As described by Thomas and Zumbo (1996), the DRC is computed as a product of the structure and standardized discriminant function coefficients in a follow-up descriptive discriminant analysis. Table 5 shows that the personal/mastery goals and peer responsibility goals variables account for 53% and 26% of the variation and are, therefore, the most important variables in the system for discriminating pre- and early adolescents (Tabachnick & Fidell, 2001).
CHAPTER IV
Discussion

The results of the present study corroborate previous research and have several important implications for future research and educational practice. Intercorrelations were computed to examine the relations among peer acceptance, peer prosocial, academic prosocial, peer responsibility, academic responsibility and personal/mastery goals in pre- and early adolescence. The hypothesis that peer acceptance would be significantly positively associated with the dimensions of social responsibility goals in pre- and early adolescence received support. Significant positive relationships were found between peer acceptance and (a) peer responsibility and (b) academic responsibility goals in both pre- and early adolescence. Additionally, there was a significant positive relationship between peer acceptance and academic prosocial goals in early adolescence. The results described above corroborate and extend previous literature (e.g., Wentzel, 1994), showing that the dimensions of social responsibility goals are not only related to peer acceptance in early adolescence but also preadolescence.

In addition, the hypothesis that personal/mastery goals would be positively and negatively associated with peer acceptance in preadolescence and early adolescence, respectively, was not supported. Instead, results of the present study indicated that no statistically significant relationship existed between personal/mastery goals and peer acceptance in preadolescence and, in fact, a positive statistically significant relationship existed between personal/mastery goals and peer acceptance in early adolescence. As researchers suggest, the kinds of social and academic goals students pursue are related to the kinds of goals that peer groups value (Berndt, 1999; Kindermann, 1993; Pintrich & Schunk, 2002). The significant relationship observed between peer acceptance and personal/mastery goals in early adolescence might reflect the idea that peers’ influence is increasingly felt throughout adolescence.
The difference tests that were computed between correlations indicated statistically significant differences between pre-and early adolescents in terms of the strength of the relations between (a) peer prosocial (being nice to someone) and peer responsibility goals (keeping other students' secrets) and (b) academic prosocial (helping someone solve a problem after figuring it out) and peer responsibility goals. For both correlations, stronger positive associations were found for preadolescents rather than early adolescents. The statistically significant differences suggest that the meaning of the relationship between the dimensions of social responsibility goals is markedly different in pre- and early adolescence. More clearly, keeping secrets and being nice to someone or helping someone is more strongly related to preadolescence than early adolescence. Although more research is needed to explore the differences reported above, perhaps they indicate (a) the transition that social relationships and social goals undergo in pre- and early adolescence (Birch & Ladd, 1996; Berndt, 1979, 1982) and (b) the priority pre-and early adolescents give to various social responsibility goals. Future research might consider how different learning environments and other aspects of development promote social responsibility goals in pre-and early adolescence in order to better illuminate the results reported above.

Further, results of the present study indicated that personal/mastery goals were significantly positively related to all dimensions of social responsibility goals. Specifically, peer prosocial, academic prosocial, peer responsibility and academic responsibility goals were significantly positively related to personal/mastery goals in both pre- and early adolescence. These findings mirror those of the established literature indicating that social responsibility goals are significantly positively associated with personal/mastery goals (Patrick, Anderman, & Ryan, 2002; Wentzel, 1993a). The results reported might reflect how students coordinate social and academic goals, which is discussed below.
Taken together the results described above indicate that the relationships among peer acceptance, social and academic goals are as researchers have indicated, very complex (Boivin & Hymel, 1997). Nevertheless, the findings reported from this study help illustrate that the consideration of social and emotional factors when examining academic motivation is an important consideration for future research (Midgley, 2002). To this end, perhaps relationships among the variables in the present study provide some evidence suggesting that, overall, peer networks influence the social and academic goals students pursue. However, the relationships observed among the social responsibility and personal/mastery goals variables might reflect the difficulty students experience in trying to coordinate the attainment of both social and academic goals. For example, students may value peer-oriented goals such as being liked and developing social relationships, and they may value high grades and personal intellectual development (Dweck, 1996; Wentzel, 1991b). As a result, students may try to coordinate the attainment of both social and academic goals. But if both goals are not attainable, students may ultimately sacrifice an academic goal for a social goal or vice versa (Pintrich & Schunk, 2002).

Further, results of the present study support the notion that within the classroom environment, peer acceptance, social responsibility and personal/mastery goals play an important role in students’ pursuit of social and academic goals (Kindermann, 1993; Pintrich & Schunk, 2002; Wentzel, 1993a, 1994). The results described above invite researchers to further consider how students’ peer relations and social responsibility goals fit into both social cognitive theories of motivation and achievement goal theory. Particularly, there is some evidence indicating that the relationships students have with their peers as well as their social responsibility and personal/mastery goals interact with and shape (contextually) students’ learning environments, particularly students’ social goals (e.g., peer acceptance) and learning goals (e.g., personal/mastery goals). Evidence provided by the present study supports researchers (e.g.,
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Roeser et al., 1996) who have incorporated social and emotional variables when examining aspects of the learning environment. More clearly, this study indicates that peer acceptance and social responsibility goals are significant aspects of the learning environment and should be considered in light of the relationships they have with the academic goals students pursue.

The second research question examined whether gender and developmental stage (pre- and early adolescence) differences existed on the peer acceptance, social responsibility, and personal/mastery goals variables. Results of the univariate analyses supported the hypothesis that girls would score higher than boys on the peer prosocial goals variable. This finding reflects the existing literature indicating girls score higher on prosocial and responsibility behaviours than boys (Wentzel, 1994).

Additionally, there was a significant interaction found between gender and developmental stage on the peer acceptance variable. The interaction of gender and developmental stage indicated that preadolescent boys had significantly higher scores of peer acceptance than preadolescent girls and, conversely, early adolescent girls had significantly higher scores of peer acceptance than early adolescent boys. As described below, perhaps this finding reflects the important but different role peer acceptance plays in the lives of pre- and early adolescent girls and boys.

The interaction described above provides strong evidence for the metamorphosis peer relationships undergo throughout development. The literature has reported that boys and girls' peer relationships develop differently and these differences are observed in the kinds of activities in which students engage (Buhrmester & Furman, 1987; Gavin & Furman, 1989; Maccoby, 1990). Researchers have found that girls not only endorse more intimacy goals but, overall, adolescent girls tend to value social relationships more than boys (L.H. Anderman & E.M. Anderman, 1999; Patrick, Anderman & Ryan, 2002). Additionally, some researchers have
suggested that girls' perceptions of acceptance are more complex than boys' (LaFontana & Cillessen, 2002). Perhaps one reason early adolescent girls' scored higher on peer acceptance is because as they move from pre- to early adolescence they place more value on their relationships with others than do boys. Berndt (1982) has noted that in contrast to girls' friendships, boys' friendships usually involve larger groups of peers and focus on team or group sports. Researchers suggest that the nature of competitive group activities coupled with developing interpersonal relationships makes boys more aware of group visibility and status issues than girls (Patrick, Anderman & Ryan, 2002). Perhaps the interaction observed in the present study reflects this notion showing that in early adolescence boys scored lower on peer acceptance than girls. Taken together, the development by gender interaction observed in the present study lends support to the conclusions of previous research by illuminating the role of peer relationships for pre- and early adolescent boys and girls. The results reported in the present study invite researchers to further examine gender differences on peer nominations measures to better understand the decision processes boys and girls undergo during peer nominations. To this end, researchers might examine learning goal orientations in relation to other peer nominated behaviours.

Finally, the significant effect of developmental stage on the personal/mastery goals variable indicates that the preadolescent elementary school students had more personal/mastery goals than did early adolescent elementary school students. This finding is worthy of discussion in light of previous research. As suggested by Midgley and her colleagues, elementary schools are often referred to as “neighbourhood schools” where students spend most of their time with a single teacher and group of peers while middle schools are referred to as “feeder schools” where students spend their time with many teachers and groups of peers. As illustrated previously, elementary schools are often regarded as those that have higher personal/mastery goal
orientations, greater feelings of school belonging, and more perceived pedagogical caring. By contrast, middle schools are regarded as those that have more of an ability goal structure, decreased sense of school belonging and lower perceived pedagogical caring. The present study examined the possibility that pre- and early adolescents’ personal/mastery goals would not differ if early adolescents stayed in elementary school. However, even when early adolescent students remained in elementary schools, their pursuit of personal/mastery goals declined. These findings are in concert with previous research (Eccles & Midgley, 1989; Midgley, Middleton, Gheen, Kuman, 2002). Clearly, more research is needed to further explore the variables that underlie, and account for, the decrease in students’ adoption of personal/mastery goals even when students remain in elementary schools (Midgley, 2002). Future inquiries might build upon previous research (Eccles & Midgley, 1995; Roeser et al., 1996) to examine relationships among pre- and early adolescent elementary school students’ perceptions of (a) student-teacher relationships, (b) feelings of relatedness, (c) perceptions of classroom goal structures, (d) performance goals and (e) personal/mastery goals in pre- and early adolescence. Inquires of this nature could help researchers better understand how and why early adolescents’ personal/mastery goals decline even when they remain in elementary schools.

The multiple regression analyses examined relations among peer acceptance social responsibility and personal/mastery goals in pre- and early adolescence. The hypothesis that peer acceptance was related (differently) to the dimensions of social responsibility and personal/mastery goals in pre- and early adolescence was supported. Results of the multiple regression analyses corroborated previous research (Wentzel, 1994) showing that the social responsibility goals early adolescents pursue are important predictors of peer acceptance in early adolescence and suggested that, in addition to gender, students’ social responsibility goals are also important predictors of social acceptance in preadolescence.
Of particular interest is the contrast observed between pre- and early adolescents in the multiple regression models. In preadolescence, peer acceptance was most importantly related to students’ gender which supports previous research (Gavin & Furman, 1989), but, the present study suggests that peer acceptance also is related to dimensions of social responsibility goals and includes complying with the requests of peers (peer responsibility goals) and listening to teachers (academic responsibility goals). In early adolescence, however, peer acceptance was not contingent on gender and was most strongly related to peer responsibility goals (keeping peers’ secrets), academic prosocial goals (helping someone solve a problem after one has figured it out), academic responsibility (doing what the teacher asks), and personal/mastery goals (learning the skills taught in school). Overall, the findings reported above extend previous research (e.g., Wentzel, 1994) by showing that for both pre- and early adolescents, peer acceptance is strongly related to social responsibility goals.

Nevertheless, the subtle contrast in the ordering of the variables is considered as some evidence of the developmental differences between peer relationships in pre- and early adolescence where early adolescents in contrast to preadolescents begin to identify and spend more time with others (Birch & Ladd, 1996). The differences between pre- and early adolescents in their social responsibility and personal/mastery goals suggest that in terms of peer acceptance, both groups first focus on learning to be responsible to peers. In preadolescence it seems that learning the skill of being responsible to peers generalizes to being responsible to teachers. In early adolescence, however, not only is it important to be responsible to peers and learn the skills taught in school for peer acceptance, but before these things, it is important to first help friends solve problems if one has figured them out. Again, this finding supports the notion that peer acceptance and peer relationships are different in pre- and early adolescence.
Additionally, the results from the multiple regression models can be a further indication of how students’ social and academic goals compete at a time in development when peer relationships are an important feature of development. Given that social responsibility goals reflect the rules that govern the educational environment and have the potential to impact relationships with others, it is unsurprising that they are more strongly related to peer acceptance than are personal/mastery goals. The non-significant relationship that peer prosocial goals (general peer goals) had in both pre- and early adolescence is perhaps a reflection of the notion that acceptance within the classroom is, unsurprisingly, a function of classroom specific behaviour (Wentzel, 1994).

In sum, the findings reported above help to support the critical role of peer relationships in pre- and early adolescence and the ways that both social responsibility and personal/mastery goals contribute to these relationships (Berndt, 1979, 1999; Birch & Ladd, 1996; Kindermann, 1993; Schonert-Reichl & Hymel, 1996). Practically, the results reported above invite researchers and educators to collaborate on ways of promoting balanced goal structures to achieve schools’ objective of creating communities that emphasize learning and achievement through social responsibility while enabling students to meet their goals. Further, future research could extend the notion of social responsibility goals to better understand (a) teachers’ perceptions of a social responsibility goal structure for students and (b) how teachers model social responsibility in the classroom.

The results of the discriminant function analyses show which constructs differentiate pre- and early adolescents. The hypothesis that differences would exist between pre- and early adolescents on the peer acceptance, dimensions of social responsibility, and personal/mastery goals variables was supported. Particularly, results indicated distinct differences between pre- and early adolescents personal/mastery and peer responsibility goals. This finding corroborates
the findings reported in the univariate analyses and further illustrates that future research should examine how and why personal/mastery goals differ for pre- and early adolescents even when early adolescents remain in elementary schools. Equally important is the finding that distinct differences between pre- and early adolescents can be observed on the peer responsibility goals variable where, again, preadolescents had more peer responsibility goals than did early adolescents. Perhaps these results suggests that as students start to develop relationships with peers that are more intense, personal and reflective (Birch & Ladd, 1996), one of the first ways they acknowledge the importance of these relationships is by complying with their peers (e.g., keeping secrets, keeping promises). As students age and as they develop cognitively and socially, perhaps they acquire a more elaborate repertoire of skills that may help them attain social responsibility and learning goals such as prosocial behaviours and relative ability goals.

Strengths, Limitations, and Directions for Future Research

Strengths of the present investigation include a large sample ($N = 356$) and the measures employed in the present study had reasonable psychometric properties. Previous literature has studied peer acceptance, social responsibility goals, and personal/mastery goals in isolation. However, the present study explored relations among these variables in pre- and early adolescence as well as differences between these groups.

There also are limitations of the present study. The revised measure of Wentzel’s (1994) Social Responsibility Goals Questionnaire may have distorted findings as it (a) utilized only 10 of 14 items in the original measure and (b) offered respondents three response choices instead of five, thereby reducing variability among scores. As indicated previously future research should consider employing Wentzel’s (1994) original measure with a five-point response scale suitable for preadolescents.
Future research might investigate how dimensions of social responsibility goals and achievement goals relate to students’ final grades and other aspects of peer rated behaviours such as shyness and social anxiety. In addition, qualitative research might include an examination of how (a) teachers’ promote social responsibility goals in the classroom environment and (b) how teachers perceive social responsibility goals for their students.

In sum, although the results of the present study are correlational in nature and do not lend themselves to causal interpretation, they represent an important beginning for understanding how academic and social goal structures are related to peer acceptance and developmental differences in the ways these variables relate to pre- and early adolescents. Notwithstanding the limitations described above, replications of the present study should continue to investigate how peer acceptance, social responsibility and mastery goals differ across development and fit into the larger picture of social cognitive theories of motivation and students’ school success.

Summary and Implications for Educational Practice

The current investigation corroborated findings in the literature and suggested that the social and academic goals students pursue are related to peer acceptance in the classroom. As students move from pre- to early adolescence, peers play an increasingly important role as targets of, and influences on, students’ goals. The classroom environment sets the stage where educators have the opportunity to promote social acceptance and academic goals through social responsibility goals. Finally, educators are in a position to help students learn to balance and coordinate the attainment of social and academic goals in the classroom environment.
Delimiting the role of peers

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Terry, R. (2000). Recent advances in measurement theory and the use of sociometric techniques. In A.H.N. Cillessen & W.M. Bukowski (Eds.), Recent advances in the measurement of peer acceptance and rejection in the peer system (pp.27-54), *New Directions for Child and Adolescent Development, 88*, CA: Jossey-Bass.


Wentzel, K.R. (1991a). Relations between social competence and academic achievement in early
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Wigfield, A., & Eccles, J.S. (1994). Children’s competence beliefs, achievement values, and
general self-esteem: Change across elementary to middle school. *Journal of Early Adolescence: Special Issue: Middle grades schooling and early adolescent development; 1. Early adolescents' psychological characteristics, relationships with others, and school performance, 14, 107-138.*
Appendix

Peer Acceptance (1 item):
Circle the names of students who you would like to be in school activities with

Revised Measure of Social Responsibility Goals (Wentzel, 1994)

Peer Prosocial Goals (4 items)
How often do you try to cheer someone up when something has gone wrong?
How often do you try to be nice to kids when something bad has happened to them?
How often do you try to help other kids when they have a problem?
How often do you think about how your behaviour will affect other kids?

Academic Prosocial Goals (3 items)
How often do you try to help your classmates solve a problem once you’ve figured it out?
How often do you try to share what you’ve learned with your classmates?
How often do you try to help your classmates learn new things?

Peer Responsibility Goals (2 items)
How often do you try to keep promises that you’ve made to other kids?
How often do you try to keep secrets other kids have told you?

Academic Responsibility Goals (1 item)
How often do you try to do what your teacher asks you to?

Personal/Mastery Goals (Roeser et al., 1996; 5 items)
Understanding the work in school is more important to me than the mark I get.
I like school work that I will learn from even if I make a lot of mistakes.
The main reason I do my work in school is because I like to learn.
I like school work best when it really makes me think.
I feel most successful in school when I learn something I did not know before.
Table 1

Means and Standard Deviations for the Peer Acceptance, Social Responsibility Goals and Personal/Mastery Goal Orientation Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer Acceptance</td>
<td>.33 (.32)</td>
<td>.16 (.17)</td>
<td>.04 -.75 (0-.79)</td>
</tr>
<tr>
<td>Peer Prosocial Goals</td>
<td>2.38 (2.31)</td>
<td>.43 (.40)</td>
<td>1-3 (1-3)</td>
</tr>
<tr>
<td>Peer Responsibility Goals</td>
<td>2.62 (2.71)</td>
<td>.50 (.41)</td>
<td>1-3 (1.5-3)</td>
</tr>
<tr>
<td>Academic Prosocial Goals</td>
<td>2.28 (2.25)</td>
<td>.47 (.44)</td>
<td>1-3 (1-3)</td>
</tr>
<tr>
<td>Academic Responsibility Goals</td>
<td>2.72 (2.72)</td>
<td>.48 (.49)</td>
<td>1-3 (1-3)</td>
</tr>
<tr>
<td>Personal/Mastery Goals</td>
<td>3.60 (3.28)</td>
<td>.87 (.90)</td>
<td>1.60 – 5.0 (1-5)</td>
</tr>
</tbody>
</table>

*Note:* The values obtained for early adolescents appear in parentheses.
Table 2

*Intercorrelations For Pre- and Early Adolescents*

<table>
<thead>
<tr>
<th></th>
<th>Peer Acceptance</th>
<th>Peer Prosocial Goals</th>
<th>Academic Prosocial Goals</th>
<th>Peer Responsibility Goals</th>
<th>Academic Responsibility Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Preadolescents (Early Adolescents)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer Prosocial Goals</td>
<td>.090 (.119)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic Prosocial Goals</td>
<td>.004 (.199*)</td>
<td>.549** (.570**)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peer Responsibility Goals</td>
<td>.194* (.206**)</td>
<td>.476** (.234**)</td>
<td>.426** (.176**)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic Responsibility Goals</td>
<td>.177* (.191*)</td>
<td>.372** (.221**)</td>
<td>.239** (.234**)</td>
<td>.215** (.207**)</td>
<td></td>
</tr>
<tr>
<td>Personal/Mastery Goals</td>
<td>.018 (.167*)</td>
<td>.406** (.374**)</td>
<td>.347** (.364**)</td>
<td>.201* (.046)</td>
<td>.266** (.300**)</td>
</tr>
</tbody>
</table>

*Note:* The correlations for early adolescents are in (parentheses). *p < .05. **p < .01. In addition, rXY indicates a statistically significant difference between correlations for pre- and early adolescents.
Table 3

Effects of Gender and Developmental Group for the Peer Acceptance, Social Responsibility and Personal/Mastery Goals Variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Gender Effects</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer Prosocial Goals</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>2.26 (.42)</td>
<td>186</td>
</tr>
<tr>
<td>Girls</td>
<td>2.43 (.40)</td>
<td>170</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Developmental Group Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preadolescents</td>
</tr>
<tr>
<td>Boys</td>
</tr>
<tr>
<td>Girls</td>
</tr>
<tr>
<td>Early Adolescents</td>
</tr>
<tr>
<td>Preadolescents</td>
</tr>
<tr>
<td>Early Adolescents</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Gender * Developmental Group Interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peer Acceptance</td>
</tr>
<tr>
<td>Boys</td>
</tr>
<tr>
<td>Girls</td>
</tr>
<tr>
<td>Preadolescents</td>
</tr>
<tr>
<td>Boys</td>
</tr>
<tr>
<td>Girls</td>
</tr>
<tr>
<td>Early Adolescents</td>
</tr>
<tr>
<td>Boys</td>
</tr>
<tr>
<td>Girls</td>
</tr>
<tr>
<td>N</td>
</tr>
<tr>
<td></td>
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<tr>
<td></td>
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<tr>
<td></td>
</tr>
</tbody>
</table>

Note: Standard deviations appear in parentheses.
* p < .05.  ** p < .01.  *** p < .001.
Table 4

*Personal/Mastery Goals, Peer Prosocial, Academic Prosocial, Peer Responsibility and, Academic Responsibility Goals as Predictors of Peer Acceptance in Preadolescence*

<table>
<thead>
<tr>
<th>Predictors of Peer Acceptance</th>
<th>Preadolescents' Peer Acceptance</th>
<th>Early Adolescents' Peer Acceptance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>R square = .163 1/2p = .083</td>
<td>R square = .093 1/2p = .083</td>
</tr>
<tr>
<td></td>
<td>Beta</td>
<td>r_{xy}</td>
</tr>
<tr>
<td>--------------------------------</td>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td>Gender</td>
<td>.313**</td>
<td>.302</td>
</tr>
<tr>
<td>Personal/Mastery Goals</td>
<td>-.025</td>
<td>.018</td>
</tr>
<tr>
<td>Peer Prosocial Goals</td>
<td>.107</td>
<td>-.090</td>
</tr>
<tr>
<td>Academic Prosocial Goals</td>
<td>-.151</td>
<td>.004</td>
</tr>
<tr>
<td>Peer Responsibility Goals</td>
<td>.156</td>
<td>-.194</td>
</tr>
<tr>
<td>Academic Responsibility Goals</td>
<td>.162</td>
<td>-.177</td>
</tr>
</tbody>
</table>

*Note:* The Thomas-Hughes-Zumbo Index (1998) is a means of the proportion of the model $R^2$ attributable to each predictor variable; a means of variable importance.

* $p < .05$  ** $p < .01$
### Table 5

**Parallel Discriminant Ratio Coefficients (DRC) From the Descriptive Discriminant Function Analysis with Pre- and Early Adolescence as the Grouping Variable**

<table>
<thead>
<tr>
<th>Predictor Variables</th>
<th>Standardized Canonical Discriminant Function Coefficients</th>
<th>Correlation between Discriminating Variables and Standardized Canonical Discriminant Function</th>
<th>Parallel DRC/Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mastery Goals</td>
<td>-.73</td>
<td>-.72</td>
<td>.53 (1)</td>
</tr>
<tr>
<td>Peer Responsibility Goals</td>
<td>.60</td>
<td>.43</td>
<td>.26 (2)</td>
</tr>
<tr>
<td>Gender</td>
<td>.31</td>
<td>.37</td>
<td>.11</td>
</tr>
<tr>
<td>Peer Prosocial Goals</td>
<td>-.30</td>
<td>-.33</td>
<td>.01</td>
</tr>
</tbody>
</table>

**Note:** The Thomas-Zumbo Index (1996) is a means of the proportion of the model variance attributable to each predictor variable; a means of variable importance. 60.1% of cases were correctly classified.