# The Social Underpinnings of Motivation and Achievement: Investigating the Role of Parents, Teachers, and Peers on Academic Outcomes

**Ronnel B. King · Fraide A. Ganotice Jr.**

**Abstract** High-quality social relationships are important for students' academic motivation and achievement. However, the specific pathways through which social relationships influence motivation, learning, and achievement are still unclear. Guided by Anderman's (in: Urdan (ed.), Advances in motivation and achievement, vol. 11: the role of contextual influences on motivation, 1999) social–motivational model, this study tested a conceptual model positing perceived social support from parents, teachers, and peers as predictors of various types of achievement goals (mastery, performance, work avoidance, and social). Goals, in turn, were posited to influence the use of self-regulated learning strategies and subsequent academic achievement. These hypothesized relationships were tested in one path analytic model with a sample of Filipino secondary students ($n = 1,026$). Results showed that social support from parents, teachers, and peers positively predicted adaptive types of goals. Parent support was negatively associated with a work avoidance goal. Self-regulation positively predicted subsequent academic achievement. Taken together, the findings evinced the relevance of social relationships on academic outcomes. Implications and directions for future research are discussed.

**Keywords** Social relationships · Achievement goals · Work avoidance · Social goals · Academic achievement

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School motivation cannot be divorced from the social fabric in which it is embedded (Weiner 1990, p. 621).

## Introduction

Students differ in terms of the nature and quality of their relationships with significant others. Some students have supportive teachers while others have teachers who are indifferent at best. There are those who hang out with academically oriented friends, while there are also those who associate with delinquent peer groups. Some have parents who are concerned about schoolwork while others have parents who could not care less about what is going on in class. These social relationships are assumed to have an important impact on students' motivation and achievement in school (Martin and Dowson 2009).

Despite the acknowledgment that social relationships are important, educational psychologists are still unclear about the pathways through which social relationships influence motivation, learning, and achievement. A possible reason for this lack of understanding is that most educational psychologists who study academic motivation have treated it as a property inherent in the person (i.e., individual differences approach). Maehr and Zusho (2009) claimed that for many researchers, "motivation is viewed as a personality trait exhibited to varying degrees by individuals…It is typically also assumed that is a relatively stable trait: a pattern of feeling, personal orientation and behaviours" (p. 82).

Therefore, in this study, we aimed to examine the relationships among students' social relationships, academic motivation, and other key educational outcomes. Anderman's (1999) social–motivational model was used

as the framework for the current study (see Fig. 1). She theorized that social relationships exert a proximal impact on academic motivation, which, in turn, affects self-regulated learning strategies and subsequent academic achievement.

We tested her model in this study by looking at how perceived social support from parents, teachers, and peers (social relationships) influenced the adoption of different types of achievement goals such as mastery, performance, social, and work avoidance goals (academic motivation). Achievement goals were used to operationalize motivation given that the achievement goal model has gained widespread acceptance in the literature (Hulleman et al. 2010). Moreover, Anderman (e.g., Anderman and Anderman 1999; Meece et al. 2006) herself has used achievement goals in order to index student motivation. Achievement goals were hypothesized to affect self-regulated learning strategies and subsequent academic achievement.

This study is significant in several ways. First, it attempts to elucidate the social predictors of achievement goals, thus enriching the literature which has mostly focused on dispositional antecedents. Theoretical bridge-building between studies that focus on external social relationships and those that focus on internal motivational constructs (e.g., achievement goals) is attempted in this study (see Lee and Shute 2010, for a review). Second, students' key relationships with parents, teachers, and peers were simultaneously examined in one study which is a considerable improvement over previous research which has only focused on one type of relationship (e.g., Klem and Connell 2004; Maulana and Opdenakker 2013). The simultaneous investigation of these three key relationships enabled us to test their relative salience in predicting motivational and achievement outcomes among adolescent students. Third, a wider range of goals were included in this study through the inclusion of work avoidance and social goals. Albeit important, social and work avoidance goals have remained mostly neglected with the bulk of the research focusing on mastery and performance goals (see King and McInerney 2012; King and Watkins 2012b; Urdan and Maehr 1995, for reviews). In terms of practice, this

study also has key implications for educators who want to optimize students' learning by emphasizing the importance of both external social factors and internal motivational factors in energizing students toward greater achievement.

## Literature Review

Linking Social Relationships to Achievement Goals

Achievement goals are defined as cognitive representations of purposes in achievement situations (Elliot 2005). Goal theory posits that achievement goals such as mastery and performance goals proximally influence a multitude of educational outcomes (Hulleman et al. 2010; Maehr and Zusho 2009). Studies in both Western (e.g., Payne et al. 2007) and Asian contexts (e.g., Kahraman and Sungur 2013; King and Ganotice 2013) have provided much empirical support for the utility of this framework. Early research on goal theory originally focused on a distinction between mastery and performance goals (see Elliot 2005, for an historical review). Students who pursue mastery goals are motivated by the desire to increase their own competence relative to self-set criteria, while students who pursue performance goals are motivated by the desire to show their superiority to others through social comparisons. Later, mastery and performance goals were bifurcated into their approach and avoidance dimensions which resulted in four types of goals: mastery approach, performance approach, mastery avoidance, and performance avoidance. However, in this study, we only focused on mastery-approach and performance-approach goals given that they have the clearest relations to academic outcomes.[1]

Aside from mastery and performance goals, goal theorists have also posited the existence of work avoidance and
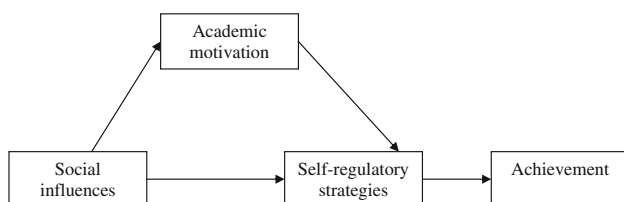


**Fig. 1** Anderman's (1999) social–motivational model

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[1] Our measure of achievement goals only included mastery approach, performance approach, work-avoidance, and social goals which represent the full array of goals captured by the Goal Orientations and Learning Strategies Survey (GOALS-S; Dowson and McInerney 2004). Dowson and McInerney (2004) did not include mastery avoidance and performance avoidance in the GOALS-S because they found that these two goal constructs repeatedly failed to emerge in any of the qualitative interviews (see Dowson and McInerney 2001, 2003). Other researchers have made similar claims about the non-existence or relatively low incidence of mastery avoidance and performance-avoidance goal constructs (Ciani and Sheldon 2010; Fryer and Ginns 2011; Lemos 1996; Sideridis and Mouratidis 2008). Qualitative studies in the Philippine setting have likewise shown that mastery avoidance and performance avoidance goal constructs were not that salient (Bernardo et al. 2008). Given that we confined ourselves to using the GOALS-S and given the lack of support for the salience of performance avoidance and mastery avoidance in the Philippines, we have decided not to measure these two goal constructs. Thus, mastery and performance goals in this study pertain only to mastery-approach and performance-approach goals.

social goals. Work avoidance goals pertain to the goal of wanting to minimize effort and the preference for tasks that are easy and can be completed quickly (Meece and Holt 1993; Nicholls et al. 1985; Skaalvik 1997; Thorkildsen and Nicholls 1998). Elliot (1999) has argued that work avoidance goals are distinct from mastery and performance goals commonly examined in achievement goal theory because it represents the absence of an achievement goal. For students with a work avoidance goal, "success" is defined in terms of minimal work expenditure and not on any measure of competence.

It is important to note that work avoidance goals are distinct from performance-avoidance goals, even though they are usually both associated with a similar set of negative outcomes. The difference lies in the reasons for achieving or not achieving. For students with performance-avoidance goals, the main reason associated with studying is being afraid of appearing incompetent before others. For students with work avoidance goals, the reason for not studying is that they simply do not care enough to act (Middleton and Midgley 1997). Work avoidance goals have been found to be associated with negative academic outcomes such as procrastination (Wolters 2003), lack of perceived meaning, sense of inadequacy, lack of control (Seifert and O'Keefe 2001), low academic self-concept, low self-efficacy for school work, anxiety in class (Skaalvik 1997), and low academic achievement (Harackiewicz et al. 1997, 2002).

In this study, we also investigated social goals which are defined as social reasons for studying (Urdan and Maehr 1995). Social goals have been shown to be especially powerful in collectivist cultural contexts (Bernardo 2008; Chang and Wong 2008; King and McInerney 2012; King and Watkins 2012a; Yu and Yang 1994). They pertain to an overall goal to study for various social reasons which may include seeking to enhance interpersonal relationships (social affiliation), getting approval (social approval), helping others (social concern), complying with social norms (social responsibility), and improving one's social status (social status).

Social goals have been shown to be especially powerful and adaptive in collectivist contexts with studies showing that they are positively related to deep learning strategies and various indices of engagement (King et al. 2010; King and Watkins 2012a, b). Note that social goals in this study pertain to social reasons for studying. As such they parallel the definition of mastery and performance goals. Whereas mastery and performance goals refer to competence-linked reasons for studying, social goals refer to socially linked reasons for studying. This definition of social goal is distinct from other definitions which focus on the social outcomes students are trying to achieve (Wentzel 1993, 1994, 1996) or their orientations toward social competence (Ryan and Shim 2006).

Due to the powerful impact of different types of achievement goals on various outcome variables, educational psychologists have become interested in identifying the antecedents of achievement goals. The most commonly identified antecedents are (1) implicit theories of intelligence and (2) achievement motives. Implicit theories of intelligence refer to whether students think that their IQ is fixed or malleable (Dweck 2002). Those who think their intelligence is fixed are more liable to experience negative outcomes and adopt performance-oriented goals. On the other hand, those who think that their intelligence is malleable are more likely to adopt mastery-oriented goals. They are also more likely to engage in adaptive behaviors such as greater effort and the use of deep and meaningful learning strategies (Dweck 2002). Research on achievement motives has shown that those with a competitive orientation—the desire to win and be better than others—were more likely to adopt performance goals, while those higher in workmastery orientation—desire to work hard and do a good job—were more likely to adopt mastery goals (Harackiewicz et al. 1997, 2002). Fear of failure was also linked to performance goals, while need for achievement was linked to both mastery and performance goals (Elliot and Murayama 2008).

However, aside from these trait variables, there is also some evidence showing that social relationships exert an important impact on academic motivation. Several studies have shown that positive parental influences are associated with adaptive motivation in school. For example, Gordon and Cui (2012) found that different aspects of parenting processes such as school-specific involvement, parental expectations, and general parental support had a significant effect on adolescents' school success in a large, nationally-representative sample from the United States. Studies by Boon (2007) and Gonzalez and Wolters (2006) found that parents who exhibited an authoritative parenting style (characterized by relationships wherein the child's perspective is acknowledged and respected with appropriate boundaries and rules) had children who were more mastery-oriented.

Supportive and caring relationships with parents were found to positively predict greater interest in academic endeavors, higher expectations of success, better self-regulation, as well as increased perceptions of competence (Field et al. 1995; Grolnick et al. 1991; Jacobsen and Hofmann 1997; Moss and St. Laurent 2001; Wentzel 2002). A long-term longitudinal study conducted by Moss and St. Laurent (2001) found that attachment to parents measured at age 6 predicted achievement and mastery-oriented motivation at grade 8. Another study showed that attachment at age 7 predicted academic achievement 8 years later during adolescence (Jacobsen and Hofmann 1997).

Studies have also shown that engagement and achievement in school is positively associated with parental support in school for both younger (Stevenson and Baker 1987; Gottfried et al. 1994; Parsons et al. 1982) and older students (Connell et al. 1994; Paulson 1994; Steinberg 1996; Wentzel 1998a, 2002). In this study, we specifically focused on measures of parental support in the school domain.

In terms of teacher relationships, positive teacher support has been linked to greater mastery goal adoption, greater valuing of academic tasks, higher interest, and self-efficacy (Goodenow 1993; Ibanez et al. 2004; Midgley et al. 1989; Mitchell-Copeland et al. 1997; Murdock and Miller 2003; Roeser et al. 1996). Midgley et al. (1989) has found that young adolescents frequently experienced a decline in motivation after the transition to middle school which coincides with the perception of lower-quality relationships with teachers. Goodenow (1993) showed that students who experienced a greater degree of teacher support exhibited higher levels of achievement motivation as indexed by greater investment of effort and higher expectancies for success. Roeser et al. (1996) found that students' relationship with the teacher was the best predictor of belongingness in school, which in turn served as a catalyst for positive affect. Wentzel (1998b) measured teacher support along with parent and peer support and found that teacher support independently predicted adaptive motivational constructs even after controlling for parental and peer support. In a longitudinal study, Murdock et al. (2000) found that teacher–student relationship in grade 7 predicted students' academic self-concept and effort in grade 9.

With regard to peer relationships, research has shown that having friends who are positively oriented toward school is positively linked to mastery-approach and performance-approach goal adoption and also to adaptive social goals such as trying to enjoy closer relationships with others (affiliation) and complying with school norms and rules (responsibility goals) (Nelson and De-Backer 2008). Conversely, having friends who were resistant to school norms was negatively associated with self-efficacy and mastery orientation (Nelson and De-Backer 2008). Berndt and Keefe (1992, 1995) found that there was an association between students' educational aspirations and the aspirations of their peer group. For adolescent students, peers' attitudes toward school have been shown to predict both current and future levels of motivation and achievement (Murdock 1999; Murdock et al. 2000).

Taken together, these studies show the roles of various types of social relationships on a wide range of school outcomes. However, the specific pathways through which these social relationships influence motivation and learning-related processes are still unclear. This study hopes to address this gap.

## Linking Achievement Goals to Self-Regulated Learning Strategies and Academic Achievement

Achievement goals have been found to be linked to the use of various learning strategies (e.g., Wolters 2004; Wolters et al. 1996). However, the bulk of this research pertains only to mastery and performance goals. Less is known about how work avoidance and social goals enter into the picture. Mastery goals have been shown to be the most adaptive being positively related to the use of different self-regulated learning strategies. For example, in an early study Pintrich and De Groot (1990) found that there was a positive relationship between students' adoption of mastery-oriented goals and various cognitive and metacognitive strategies. These findings were confirmed in subsequent studies both among older and younger students (Archer 1994; Elliot et al. 1999; Elliot and McGregor 2001; Greene and Miller 1996; Middleton and Midgley 1997; Pintrich 2000; Schraw et al. 1995; Wolters et al. 1996).

The relationship of performance goals to self-regulated learning strategies is more ambiguous. Some studies reported that a generalized measure of performance goals was related to adaptive learning strategies (e.g., Bouffard et al. 1995; Greene and Miller 1996; Nolen 1988; Vermetten et al. 2001) while others failed to find any clear evidence linking performance goals and self-regulated learning strategies (e.g., Archer 1994; Pintrich and Garcia 1991; Schraw et al. 1995). Studies that separate the approach and avoidance dimensions of performance goals show that performance-approach goals are generally positively related to various self-regulated learning strategies (Pintrich 2000; Wolters et al. 1996). However, this pattern is far from being unambiguous with some studies showing non-significant results (Middleton and Midgley 1997; Pintrich 2000). Until now, researchers are still debating about the relative advantages and disadvantages of performance-approach goals.

As for work avoidance goals, studies have consistently shown that work avoidance is negatively related to academic outcomes such as achievement and intrinsic interest (Harackiewicz et al. 1997). Although there is less research on how work avoidance goals are related to learning strategies, we expected the relationship to be a negative one as well. The relationship of social goals to various learning strategies is less clear given the dearth of research on this area. However, there is preliminary evidence showing that social goals are also positively related to adaptive learning strategies (King et al. 2010, 2013; King and Watkins 2012a, b). Thus, the relationships among work

avoidance goals, social goals, and self-regulated learning strategies are explored in the present study.

## Anderman's (1999) Social–Motivational Model

We utilize the social–motivational model proposed by Anderman (1999) as the framework for the current study. In this model, social influences are construed as exogenous variables influencing academic motivation. Academic motivation, in turn, impacts the use of various self-regulatory strategies, which, in turn exerts a proximal effect on academic achievement. In this study, social influences were operationalized in terms of perceptions of social support from parents, teachers, and peers. These three groups of people are considered the most important types of people who have a significant impact on students. Academic motivation was construed in terms of the different achievement goals (mastery, performance, work avoidance, and social) that students pursued. Self-regulated learning strategies included elaboration, rehearsal, organizing, monitoring, planning, and regulating. GPA was measured in terms of students' objective grades.

## The Present Study

In order to better understand the pathways through which social relationships impact motivation and achievement, the present study aimed to investigate the relationships of social support (parent, teacher, and peer), achievement goals (mastery, performance, social, and work avoidance), self-regulated learning strategies (elaboration, organization, rehearsal, planning, monitoring, and regulating), and achievement (math, science, and English grades).

Social support from parents, teachers, and peers were designated as exogenous variables which had a proximal influence on the four types of achievement goals. These achievement goals, in turn, predicted the use of various self-regulated learning strategies which had an impact on subsequent achievement.

## Methods

### Participants and Procedure

The participants of this study were 1,026 year high school students (424 males, 602 females) recruited from six secondary schools in the Philippines. The mean age of participants was 14.63 years (SD = 1.57) with a median of 14 years. Of the 1,026 participants, 278 of were first year; 276 were second year; 253 were third year; and 219 were fourth year students. The administration of the survey was carried out in the classroom setting by the second author. He was assisted by two research assistants.

### Measures

#### Social Relationships

Parent support (4 items, e.g., "My father doesn't pay any attention when I bring home report cards." Reverse-scored) teacher support (6 items, e.g., "Teachers are positive to me at school."), and peer support (4 items, e.g., "Most students in my class will go on to college or university."), were measured through the relevant subscales in the Facilitating Conditions Questionnaire (FCQ, Dowson and McInerney 2005; Ganotice et al. 2013).

#### Achievement Goals and Learning Strategies

The Goal Orientations and Learning Strategies Survey (GOALS-S; Dowson and McInerney 2004) was used to measure goals and self-regulated learning strategies. GOALS-S was designed to measure four goals: mastery goal (6 items, e.g., "I want to do well at school so that I can learn new things."), performance goal (6 items, e.g., "I want to do well in school because being better than others is important to me."), work avoidance goal (6 items, e.g., "I choose easy options in school so that I don't have to work too hard."), and social goal (36 items, e.g., "I want to do well at school so that I can feel close to my group of friends.").

Self-regulated learning strategies included both cognitive and metacognitive strategies. Among the cognitive strategies are: elaboration (6 items, e.g., "When learning things for school, I try to see how they fit together with other things I already know."); organization (6 items, e.g., "I organize my school notes when I want to learn things for school."); and rehearsal (6 items, e.g., "When I want to learn things for school, I practice repeating them to myself."). Among the metacognitive strategies are: monitoring (6 items, e.g., "I often ask myself questions to see if I understand what I am learning."); planning (6 items, e.g., "I often look through books to see how they are arranged before I start reading."); and regulating (6 items, e.g., "If I don't understand my schoolwork, I ask the teacher to help me.").

A 5-point Likert-type scale was used for all the self-report questionnaires ranging from 1 (*strongly disagree*) to 5 (*strongly agree*) with higher values indicating a greater degree of endorsement. Both the FCQ and GOALS-S which were used in the present study have previously been validated among Filipino students (Ganotice et al. 2013; King and Watkins 2011).

*Academic Achievement*

Students' final grades in mathematics, science, and English were obtained from the school records and used as indicators of their academic achievement.

## Results

Descriptive Statistics and Bivariate Correlations

Table 1 shows the descriptive statistics and zero-order correlations among the relevant variables.

The internal consistencies of the scales were adequate. Correlations were mostly in line with theoretical expectations. Parent, teacher, and peer support were generally positively related to adaptive achievement goals such as mastery goals and social goals. Parental support was negatively related to work avoidance goal although peer and teacher support were not significantly associated with it. Self-regulated learning strategies were positively correlated with academic achievement.

The correlations between the three social support factors—parents, teachers, and peers—were small providing evidence for the distinctiveness of these three constructs.

Structural Equation Modeling

The two-step approach to structural equation modeling (SEM) recommended by Anderson and Gerbing (1988) was followed. This approach involves first doing a confirmatory factor analysis (CFA) on the measurement model which is then followed by conducting an SEM model wherein the theoretical linkages among the variables are tested.

For the first step which involved testing the measurement model, parent support, teacher support, peer support, and the various types of achievement goals were designated as manifest variables. We designated them as manifest variables and not as latent constructs given that there would be too many parameters to be freely estimated if we posited all the variables to be latent constructs underpinned by specific items (i.e., 101 items in total). Our sample size may not be enough to permit such a high degree of model complexity. Self-regulated learning strategy was operationalized as a latent construct that was underpinned by elaboration, rehearsal, organizing, planning, monitoring, and regulating. This was done after an exploratory factor analysis showed that the six types of strategies (elaboration, rehearsal, planning, regulating, monitoring, and organizing) converged into one omnibus factor. Academic achievement was also operationalized as a latent construct underpinned by math, science, and English achievement scores obtained from the school records. This was justified by a preliminary exploratory factor analysis showing that the three scores converged into one factor. In testing the measurement model using confirmatory factor analysis, all the variables were allowed to be freely correlated with each other. Results showed that the measurement model exhibited an adequate fit to the data (see Table 2).

In the second step, we tested a SEM model (Model A) wherein social support from parents, teachers, and peers were posited as exogenous variables which predicted the different types of achievement goals. All the possible paths between social support and achievement goals were estimated. Achievement goals, in turn, predicted self-regulated learning which had an impact on academic achievement. We also included all possible direct effects of achievement goals on academic achievement given that numerous

**Table 1** Descriptive statistics, internal consistency coefficients, and bivariate correlations among the relevant variables

|                               | 1     | 2     | 3        | 4        | 5        | 6         | 7        | 8         | 9         |
|-------------------------------|-------|-------|----------|----------|----------|-----------|----------|-----------|-----------|
| 1. Parent support             | –     | 0.053 | 0.099**  | 0.223*** | −0.074*  | −0.483*** | 0.044    | 0.254***  | 0.397***  |
| 2. Teacher support            |       | –     | 0.477*** | 0.320*** | 0.233*** | 0.035     | 0.389*** | 0.378***  | 0.028     |
| 3. Peer support               |       |       | –        | 0.199*** | 0.050    | 0.054     | 0.289*** | 0.228***  | 0.119***  |
| 4. Mastery goals              |       |       |          | –        | 0.414*** | −0.188*** | 0.552*** | 0.747***  | 0.220***  |
| 5. Performance goals          |       |       |          |          | –        | 0.200***  | 0.611*** | 0.397***  | −0.138*** |
| 6. Work avoidance             |       |       |          |          |          | –         | 0.143*** | −0.185*** | −0.357*** |
| 7. Social goals               |       |       |          |          |          |           | –        | 0.592***  | −0.049    |
| 8. Self-regulated strategies  |       |       |          |          |          |           |          | –         | 0.215***  |
| 9. GPA (Z scores)             |       |       |          |          |          |           |          |           | –         |
| Mean                          | 3.59  | 3.66  | 3.47     | 3.87     | 3.39     | 2.71      | 3.53     | 3.72      | 0.00      |
| SD                            | 0.71  | 0.55  | 0.65     | 0.54     | 0.64     | 0.72      | 0.43     | 0.46      | 0.95      |
| Cronbach's α                  | 0.77  | 0.64  | 0.70     | 0.65     | 0.65     | 0.71      | 0.84     | 0.92      | 0.94      |

\* $p < 0.05$; \*\* $p < 0.01$; \*\*\* $p < 0.001$

**Table 2** Goodness-of-fit indices for the measurement model and the SEM models

| Model | $\chi^2$ | df | $p$ | $\chi^2$/df | RMSEA | CFI | TLI | IFI |
|---|---|---|---|---|---|---|---|---|
| Measurement model | 264.826 | 75 | <0.000 | 3.531 | 0.050 | 0.981 | 0.969 | 0.981 |
| Model A (Initial model) | 417.611 | 78 | <0.001 | 5.354 | 0.065 | 0.965 | 0.947 | 0.965 |
| Model B (Final model) | 479.692 | 87 | <0.001 | 5.617 | 0.067 | 0.960 | 0.945 | 0.960 |

*RMSEA* root mean square error of approximation, *CFI* comparative fit index, *TLI* Tucker–Lewis index, *IFI* incremental fit index

studies have demonstrated achievement goals to be predictors of achievement (e.g., Huang 2012; Wolters 2004).

Results of the SEM showed that this model (Model A) had a good fit (see Table 2). CFI, TLI, and IFI were above 0.90 and RMSEA was below 0.08. However, several paths were non-significant. We then tested another model with the non-significant paths deleted (Model B). Results showed that this more parsimonious model also had a good fit to the data. We decided to adopt it as the final model in this study given its greater parsimony (See Fig. 2). Table 3 shows the standardized direct, indirect, and total effects for the final model. Bootstrapping was used to determine the statistical significance of these parameter estimates.

## Discussion

The overall aim of this study was to explore how social support from parents, teachers, and peers influenced academic motivation (conceptualized in terms of students' achievement goals) which, in turn, were posited to influence self-regulated learning and academic achievement.

Social support from parents, teachers, and peers were important predictors of achievement goals. Previous research has mostly focused on how trait-like variables such as implicit theories of intelligence and generalized achievement motives predicted achievement goal adoption. This study expanded the extant literature by illustrating the role of social relationships in goal pursuit. While researchers have routinely acknowledged that goals are rooted in both trait-like characteristics and social–contextual influences, the bulk of the research has been conducted on the role of trait variables in goal adoption (Maehr and Zusho 2009). This study helps redress this imbalance by showing the important role of social relationships in facilitating the quality of students' motivation.

We found that having supportive relationships with parents, teachers, and peers were beneficial for the adoption of more adaptive types of goals such as mastery and social goals. They also buffered students against work avoidance goals. More specifically, we found that parental support was a positive predictor of mastery goals but negatively predicted performance and work avoidance goals. Teacher support was a positive predictor of mastery, performance, and social goals, while peer support



**Fig. 2** Model B (Final model). Only standardized parameter estimates are shown; *p* < 0.05, **p* < 0.01, ***p* < 0.001
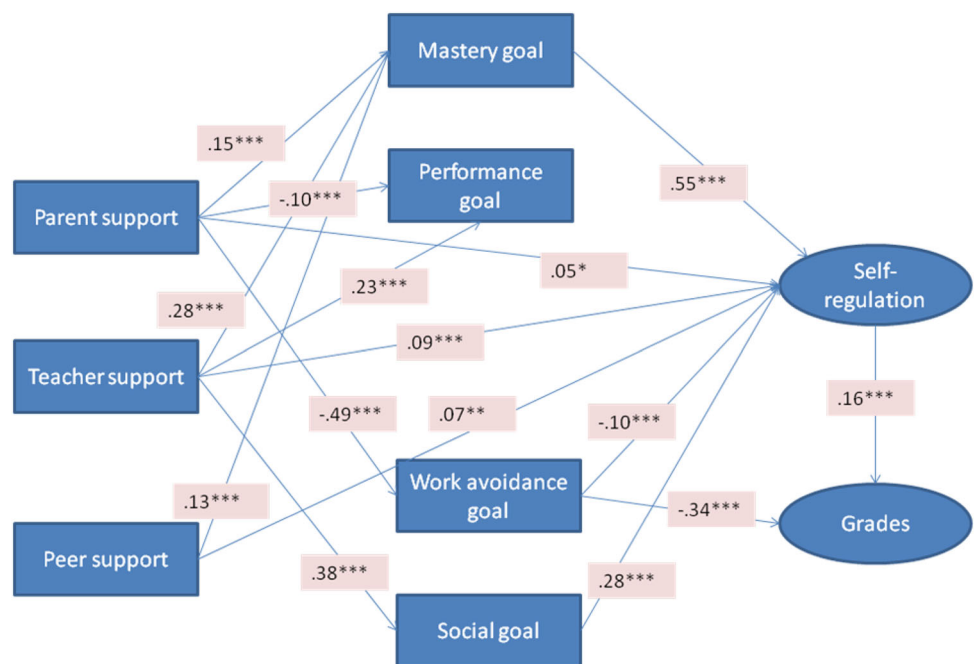
**Table 3** Standardized direct, indirect, and total effects for the final model (Model B)

| | Mastery goals | | | Performance goals | | | Work avoidance goals | | | Social goals | | | Self-regulated strategies | | | GPA | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | D | I | T | D | I | T | D | I | T | D | I | T | D | I | T | D | I | T |
| Parent support | 0.145 | – | 0.145 | −0.101 | – | −0.101 | −0.486 | – | −0.486 | – | – | – | 0.052 | 0.128 | 0.180 | – | 0.192 | 0.192 |
| Teacher support | 0.283 | – | 0.283 | 0.226 | – | 0.226 | | | | 0.379 | – | 0.379 | 0.085 | 0.261 | 0.346 | – | 0.057 | 0.057 |
| Peer support | 0.128 | – | 0.128 | | | | | | | | | | 0.068 | 0.023 | 0.138 | – | 0.023 | 0.023 |
| Mastery goals | | | | | | | | | | | | | 0.546 | – | 0.546 | – | 0.090 | 0.090 |
| Performance goals | | | | | | | | | | | | | | | | | | |
| Work avoidance goals | | | | | | | | | | | | | −0.100 | – | −0.100 | −0.336 | −0.016 | −0.352 |
| Social goals | | | | | | | | | | | | | 0.281 | – | 0.281 | – | 0.046 | 0.046 |
| Self-regulated strategies | | | | | | | | | | | | | | | | 0.164 | – | 0.164 |
| GPA | | | | | | | | | | | | | | | | – | – | – |

*D* direct effects, *I* indirect effects, *T* total effects

Bootstrapping was used to determine the significance level of the direct, indirect, and total effects. All estimates are significant at $p < 0.05$ based on maximum likelihood bootstrapped estimates

positively predicted both mastery goals. Results of the study generally corroborate previous research which has shown the academic benefits of having supportive interpersonal relationships (see Martin and Dowson 2009, for a review).

Mastery goals have been recognized as the most adaptive type of achievement goal given their positive association with a host of beneficial outcomes such as academic achievement, effort, intrinsic motivation, and deep learning strategies among others (see Hulleman et al. 2010). This study shows that having supportive relationships with parents, teachers, and peers can facilitate the pursuit of mastery goals. When students feel supported by their significant others, they are more likely to adopt mastery goals highlighting the importance of a healthy social matrix in driving adaptive motivation. Our finding is also in line with the larger literature on attachment theory which claims that having high-quality social relationships foster a safe environment for indulging one's curiosity and for engaging in exploratory behaviors both of which are inherent characteristics of mastery-oriented learners (see Dykas and Cassidy 2011, for a review).

The relationship of performance goals to social relationships was interesting because parental support was a negative predictor, while teacher support was a positive predictor. This may be explained by the practices of teachers in secondary schools. Competitive practices such as displaying honor rolls and announcing the grades of students before the class are quite common in Philippine settings. These competitive teaching practices, in turn, may facilitate the adoption of performance goals. This may account for why perceived teacher support but not parent support was positively linked to performance goal adoption. Clearly, more research is needed to clarify these differential associations.

The positive association between social goals and teacher support was also of theoretical interest given that social goals have been understudied in the literature. Relatively little is known about the antecedents of social goals aside from a few theoretical speculations (e.g., King and McInerney 2012; King and Watkins 2012b; Urdan and Maehr 1995). It is possible that supportive teachers engaged in more cooperative learning approaches. They may have asked their students to work on group projects and facilitated collaboration among their students, which may facilitate the adoption of social goals. Previous research has shown that social goals may be especially powerful in motivating students (Dowson and McInerney 2001, 2003; King et al. 2012, 2013). The identification of factors that could predict social goal adoption is an important contribution of this study.

Work avoidance goals are considered maladaptive. In this study, we found that parent support buffered against work avoidance goals. Surprisingly, neither teacher support nor peer support was associated with work avoidance. This highlights the important role of parents in preventing students from being alienated and disengaged in school. Although it is widely acknowledged that parents play an important role in the learning and achievement of their children, relatively less is known about the specific mechanisms through which parents impact learning outcomes. This study suggests that an important way through which parents influence outcomes is through the facilitation of mastery goals and the buffering against work avoidance goals.

In terms of the relationship between achievement goals and self-regulated learning strategies, we found that mastery goal was a positive predictor of self-regulated strategies. This finding is in line with theoretical expectations. Of greater interest is the positive relationship between social goals and self-regulated learning strategies. As mentioned earlier, social goals are under-studied. Some researchers have claimed that social goals might short-circuit in-depth intellectual engagement, while other researchers have argued that social goals are adaptive and can lead to positive learning outcomes (Dowson and McInerney 2001, 2003; Urdan and Maehr 1995). Our results showed that social goals are adaptive because of their positive association with the use of self-regulated learning strategies. When students pursue social goals, they may have additional reasons for wanting to do well. Ford (1996) claimed that social goals may function as a form of motivational insurance against disengagement from studying especially in situations when mastery-oriented motivation is not enough to sustain student interest and engagement.

A caveat is that social goals in our study were defined as social reasons for studying. This definition has been proposed by Urdan and Maehr (1995) and the utility of this definition has been supported by a wide range of empirical studies utilizing both qualitative (e.g., Dowson and McInerney 2001, 2003) and quantitative approaches (e.g., Dowson and McInerney 2004; King et al. 2012, 2013). However, there are alternative conceptualizations of social goals (e.g., Ryan and Shim 2006). When alternative definitions of social goals are used it might be possible that a different set of findings would emerge.

What was surprising was the non-significant relationship between performance goals and self-regulated learning strategies. This seems to provide some support for Brophy's (2005) call to "move beyond performance goals." Brophy (2005) argued that achievement goal theorists' focus on performance goals was not warranted because performance goals were not very salient in motivating students. He suggested that there are other goals that were more salient in predicting student outcomes. Although our study cannot definitively conclude anything about the importance (or lack thereof) of performance goals, it shows that when other goals were taken into account (mastery, social, and work avoidance), performance goals are no longer significant predictors of self-regulated learning. Mastery, social, and work avoidance goals are more salient proximal predictors of the use of self-regulated learning strategies. Future research may need to consider simultaneously including both performance approach and performance-avoidance goals which may further clarify these relationships.

We also included all possible direct paths between goals and academic achievement in Model A. The final Model B

showed that only work avoidance goals had a direct effect (negative) on academic achievement. The other goals were no longer significant predictors of achievement when self-regulated learning was taken into account. The power of work avoidance to negatively predict achievement over and above its effects through self-regulated learning suggests that work avoidance goal is especially harmful for student learning and achievement. Few researchers have focused on this under-researched construct, and it is suggested that educators target this construct in their interventions. Reducing work avoidance goal adoption may be key to improving student learning outcomes.

Self-regulated learning strategies were shown to have a positive impact of subsequent academic achievement. This corroborates the huge evidence in the self-regulated learning literature about its positive impact on academic achievement. Students who use adaptive learning strategies as they go about their learning are also more likely to have a higher level of achievement.

Taken together, results of this study show that the impact of social relationships on academic achievement is not a direct one. This study allows for a more nuanced understanding of how social relationships affect learning-related processes.

This study has important theoretical contributions. First, it elucidates the pathways through which social relationships impact achievement goals, learning strategies, and achievement. The path model in this study suggests that a possible way of understanding how social relationships impact learning would be to see parent, teacher, and peer influences as having an impact on students' goal orientations. These goal orientations, in turn, influence the use of self-regulated learning strategies and subsequent academic achievement.

Second, this study simultaneously explores the impact of different types of social relationships on student motivation and achievement. Previous research on the role of social influences has focused only on one type of significant other. For example, some studies explore how students' relationships with their teachers play a role. Other studies have emphasized the role of parents, while there are also those who only focus on peer relationships. This study simultaneously examines the role of different types of relationships. By doing this, it shows us the differential relationships of particular types of social relationships to different motivational outcomes. For example, by juxtaposing these social relationships with each other we found that work avoidance goal was mostly influenced by the quality of relationships with parents. On the other hand, for social goals, relationship with the teacher seemed to be more important. We also found that performance goals may have differential relationships to teacher and parent support.

Third, this study highlights the synergies between research on external social factors (parent, teacher, and peer relationships) and those on internal cognitive-motivational constructs (goals, self-regulated strategies). It is important to acknowledge that students are enmeshed in a highly interconnected social fabric. Exclusively focusing on internal cognitive-motivational factors to the exclusion of social factors may give us a distorted picture of students' motivational dynamics which does not do justice to motivation's highly embedded nature.

This study also has important practical implications for educators. In order to improve students' motivational and achievement outcomes, interventions may target the level of social support that students receive from parents, teachers, and peers. Increased social support from significant others will lead to greater adaptive motivation and higher academic achievement.

Limitations and Directions for Future Research

One of the limitations of this study is its cross-sectional design. The cross-sectional data we have gathered does not permit the analysis of causal assumptions. Future research using a prospective longitudinal design would permit stronger conclusions. Second, almost all the variables in this study—except for academic achievement—were measured using self-reports. Self-report measures are prone to common method variance. Future research using alternative assessment methods could be employed. Third, we did not measure mastery avoidance and performance-avoidance goals in this study. Future research could include the measurement of avoidant types of goals given that recent research has recognized the importance of including the approach-avoidance components of mastery and performance goals (Elliot 2005).

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