Are Teachers’ Psychological Control, Autonomy Support and Suppression, Associated with Students’ Achievement Goals?

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Abstract

This study investigated associations between students’-perceived teacher behaviors (autonomy support, autonomy suppression, and psychological control) and students’-personal goal orientations. Thus, the study applied theoretical concepts from self-determination theory (SDT; Deci & Ryan, 2000) in an attempt to enhance understanding of additional environmental characteristics possibly affecting personal goal orientations. Goal orientations defined as the goal people pursue on an achievement task, and three goals most commonly used by theorists and empiricists (e.g. Midgley et al., 2000; Elliot & Thrash, 2001): (1) mastery goals, which focus on acquiring new knowledge or skills; (2) performance-approach goals, which focus on gaining positive external evaluation; and (3) performance-avoidance goals, which focus on avoiding negative external evaluation.

A large body of research has identified teachers' behaviors and environmental factors conducive to students’ adoption of more adaptive goal orientations (i.e., mastery goals). Teachers who provide relevant and flexible tasks, evaluate students according to effort, group students according to interest and not by skills, and avoid social comparisons are more likely to create a mastery goal structure (e.g., Ames, 1992; Lau & Nie, 2008). This study examined specifically psychological control in a classroom context, whereas it was previously investigated mainly within parent-child relationships (Barber, 1996). Moreover, SDT focused primarily on how to enhance internal motivation, through an autonomy-supportive environment. Researchers suggested that providing challenging and relevant tasks, delivering constructive and informative feedback, and enabling some level of choice in what and how to learn should predict the feeling of self-controlling and internal motivation (Assor & Kaplan, 2001; Reeve, 2006). On the other hand, some practices were identified as suppressing feelings of autonomy, such as restraining the expression of personal opinions or criticism, and compelling participation in irrelevant or boring activities (Assor et al., 2002).

Junior-high school students (n = 191; mean age 13.5 years (SD = .63); 69% females) completed online questionnaires to assess their perceptions of teacher practices and their own personal goals. All measurements were previously validated and were found to have an acceptable internal reliability. Teachers' psychological control and autonomy suppression were distinguished using confirmatory factor analysis, but were highly correlated. When regarding them as two dimensions of teachers’ compelling behaviors, they associated positively with performance-approach and performance-avoidance goals and negatively with mastery goals (applying SEM using AMOS). Findings suggested that teachers should facilitate an autonomy-supporting environment in addition to avoiding various compelling practices. Theoretical contribution, limitation, and practical implication will be discussed.

Introduction

Different theoretical frameworks suggest similar educational practices, which are aimed to enhance students’ motivation and engagement in classroom. For example, the assertion that teachers should limit their control over learning in the classroom is prominent in self-determination theory (e.g., Madjar & Assor, in press), but also in goal orientation theory (e.g., TARGET; Ames, 1992). Therefore, the current study aimed to provide a preliminary empirical evidence to the
association between environmental construct adapted from self-determination theory (i.e., teachers’ autonomy-support and teachers’ autonomy-suppression), and parental style theory (i.e., psychological control), to students’ goal orientations. In addition, the study addresses the question whether teachers’ autonomy-suppressive practices are theoretically and empirically distinguished from teacher psychologically-controlling ones. We start with a brief review of the main concepts in each theory.

Self-Determination Theory

Self-determination theory (SDT; Deci, 2008; Deci & Ryan, 2000) presumes that human motivation can be defined as a continuum between a-motivation and internal motivation, as follows: (i) a-motivation = a lack of compliance to participate in the activity at all (I just don’t want to study); (ii) external motivation is the effort expended to obtain an external reward or avoid a punishment (I study in order to get money or a present); (iii) introjection = behavior resulting from an external evaluation that manifests as the desire to be socially accepted or to avoid rejection (I participate in sports so my peers will appreciate me); (iv) identification = a fuller internalization of the value or meaning of the activity (I study because it is important in general); (v) integrative motivation = when the task’s value also matches one’s personal identity (I study because it is important to me and fits in with my personal values and beliefs); and (vi) internal motivation = participating in an activity for the mere pleasure and interest (I study because I enjoy it).

Different types of motivation may display similar external behaviors. For example, two students may aspire for high grades on an exam, but one is expecting to win a new electronic gadget promised by his parents (i.e., extrinsically motivated) whereas the other simply enjoys learning (i.e., internally motivated). Nevertheless, a significant difference may be expected in these two students’ quality of engagement in the task: The internally motivated student will likely practice deep information processing (rather than shallow processing), whereas the extrinsically motivated student will more likely be reluctant to invest efforts when encountering difficulties and will experience more negative affect (fear, boredom) during the task (Assor, Kaplan, & Roth, 2002; Vanteenkinste, Simons, Lens, Sheldon, & Deci, 2004). Thus, not only concrete participation in activity is important, but also the motives leading up to participation, which may dictate the activity’s benefits and costs.

Many studies addressed the question of how to enhance internal motivation. Their findings supported the assumption that three basic needs may impact the quality of personal motivation: the need for relatedness, the need for competence, and the need for perceived autonomy (Ryan, 1995). People who feel social belonging, feel confident that they are sufficiently competent to complete a task, and believe that it is their own aspiration that led them to participate in the task –
are more likely to report internal motivational quality (Deci & Ryan, 2000; Ryan, 1995). Previous theories already established the importance of relatedness and competence for enhancing internal motivation (e.g., Baumeister & Leary, 1995); therefore, SDT focused primarily on how to enhance the third basic need, through an autonomy-supportive environment. Researches suggested that providing challenging and relevant tasks, delivering constructive and informative feedback, and enabling some level of choice in what and how to learn – together with genuine expression of affection – should predict the feeling of self-controlling and internal motivation (Assor & Kaplan, 2001; Black & Deci, 2000; Reeve, 2006). On the other hand, some practices were identified as suppressing feelings of autonomy, such as restraining the expression of personal opinions or criticism, compelling participation in irrelevant or boring activities, and interfering with natural sequences of behaviors (Assor et al., 2002).

**Psychological Control**

Another means for influencing behavior is psychological control. Psychological control refers to the use of emotional exploitation to induce desirable conduct (Barber, 1996), as when parents induce shame and guilt to impede a specific behavior in their child. Since psychological control sometimes aimed to generate forced behavior it may be mistakenly confounded with the suppression of autonomy, but the practices are somewhat different. While psychological control is more intrusive emotional manipulations (Barber, 1996; Barber, Stolz & Olsen, 2005), the autonomy suppression focuses on limiting the choices and directing activities in certain way (Assor et al., 2002). Psychological control is generally perceived as a poor parental practice to induce motivation because it is associated with many negative emotional outcomes such as depression and anxiety (Barber, Stolz, & Olsen, 2005; Pettit & Laird, 2002). Most recent parenting study suggested that psychological control should be separated into two general orientations – dependency and achievement – in order to comprehend the complex effects of intrusive parenting (Soenens, Vansteenkiste, & Luyten, 2010). The current study extended the issue of psychological control from parents to teachers, and due to the relative novelty of the concept of teacher psychological control, we constructed a preliminary unidimensional scale to assess those practices. Currently, the definition and measurement of teachers’ psychological control is not well established and validated. As a consequence, the literature is scare with evidences about the effect of intrusive controlling behaviors on students’ adaptation and performance in classroom.

**Achievement Goal Orientations**

According to goal orientation theory, motivation can be defined by the general goals that students pursue in the process of learning or in achievement-related environments (e.g., Ames, 1992; Dweck, 1986). The three goals most commonly used by theorists and empiricists (e.g.
Midgley et al., 2000; Elliot & Thrash, 2001) comprise: (1) mastery goals, which focus on acquiring new knowledge or skills and which characterize individuals who enjoy mere participation in activity; (2) performance-approach goals, which focus on gaining positive external evaluation and which characterize individuals who wish to gain public appraisal of their performance; and (3) performance-avoidance goals, which focus on avoiding negative external evaluation and which characterize individuals seeking to avoid being assessed as incompetent. A fourth goal orientation – mastery-avoidance goals, which focus on inability to achieve personal potential in a task or losing knowledge and skills that had already been acquired – has not yet been validated in terms of measurements and theoretical definitions, and therefore was not included in the current study (see Elliot & Murayama, 2008; Van Yperen, Elliot, & Anseel, 2009).

Research findings over the years concerning the benefits of goal orientations within various achievement contexts have consistently suggested that the mastery orientation is the most adaptive achievement goal orientation of the three (Elliot, 2005; Kaplan & Maehr, 2007). Students with higher levels of mastery goals report great usage of deep information processing during learning tasks (Bandalos, Finney, & Geske, 2003) and of beneficial, efficient self-regulated strategies (Cleary & Chen, 2009; Pintrich, 2000; Wolters, 2004). These skills and strategies may explain the finding that university students' levels of mastery goal orientation predicted their performance of a task requiring long-term retention of information, whereas performance-avoidance was negatively related to performance on that task (Utman, 1997). Students high in mastery goals are also expected to report superior and more frequent use of adaptive help-seeking (Karabenick, 2004). Moreover, students with higher mastery goals are more likely to report better emotional states and enhanced well-being in school (Kaplan & Maher, 1999). In a recent longitudinal study (Daniels et al., 2008), four groups were clustered using concordance of the multiple goals approach (see Harackiewicz, Barron, Pintrich, Elliot, & Thrash, 2002): high mastery, high performance, multiple goals, and low motivated. Although the actual achievements were similar among most groups (with the exception of low motivation), the performance groups were more emotionally susceptible (in term of boredom and anxiety) than those with mastery goals.

A large body of research has identified teacher behaviors and environmental factors conducive to students’ adoption of more adaptive goal orientations (i.e., mastery goals). Teachers who provide relevant and flexible tasks, evaluate students according to effort (instead of actual performance), group students according to interest and not by skills or abilities, and avoid social comparisons or competition are more likely to create a mastery goal structure (e.g., Ames, 1992; Lau & Nie, 2008; Patrick, Anderman, Ryan, Edelin, & Midgley, 2001). Theoretically, such practices also match the features of autonomy-supportive environments, with many common principles emphasizing interest, intrapersonal comparison, and self-improvement. Scholars have also argued previously that different theoretical constructs in motivational theories share similar features. For
example, intrinsic motivation can be compared with mastery goal orientation because both highlight internal interest and engagement in the task (Eccles, 2005). Therefore, it is reasonable to speculate that an autonomy-supportive teaching environment will also predict students’ adoption of a more adaptive goal orientation, and vice versa: Suppression of autonomy may result in students’ adoption of less adaptive goals. The current study aimed to investigate this theoretical hypothesis empirically. Recently, studies have also focused on mastery-avoidance goal orientation – which is the purpose to avoid deterioration of knowledge that had already been acquired. As the definition, measurement, and significant of this goal to learning settings are still under debate (Madjar, Kaplan & Weinstock, 2011), it was not assessed in the current study.

Possible Associations between the Theoretical Frameworks

Several scholars have postulated theoretical relationships between vastly used cognitive constructs and contemporary theoretical frameworks of human motivation (Eccles, 2005; Urdan & Shoenfelder, 2006). However, empirical evidence for these hypothesized connections between theories is still rather scarce. In recent study, self-determination was positively associated with mastery claimant and personal mastery goal, while negatively associated with performance claimant and personal performance goals (Moreno, González-Cutre, Sicilia & Spray, 2010). Yet, this study had focused on the setting of physical exercise and not academic learning. Other scholars suggested that the autonomous and controlled motivations are two valances, or the motives, of each individual goal (Vansteenkiste et al, 2010). In other words, pursuing performance-approach goal can derive from internal aspiration to outperform other - such as the pleasure of competition – or it can derive from extrinsic source, such as a desirable award or prize. Vansteenkiste and his colleagues (2010) had studied this approach particularly with performance-approach goal. In our study the focus is on the environmental characteristics which may promote all of the common three goal orientations in one model – without the distinction of internal/external valence in each goal.

Although some studies have examined teachers’ general control in the classroom, specifically coercive activities or invasive managing (e.g., Assor, Kaplan, Kanat-Maymon, & Roth, 2005; Eshel & Kohavi, 2003; Vansteenkiste, Simons, Lens, Soenens, & Matos, 2005), a paucity of literature exists in relation to teachers’ psychological control – the more emotionally intrusive and manipulative aspect of control – which has been overwhelmingly investigated in the context of parent-child relationships (see also Grolnick, 2003). Therefore, the first aim of the current study was to provide empirical support for the theoretical differentiation between psychological control and autonomy suppression. We hypothesized that both psychological control and autonomy suppression would be found as two aspects of teachers' controlling behavior, which, in turn, would be associated with students’ less adaptive outcomes (i.e., performance goals). On the other hand,
a link was expected between teachers’ autonomy support and students’ more adaptive outcome (i.e., mastery goals). These research questions aimed to thereby enhance understanding of both theoretical frameworks.

**Method**

**Participants**

Participants comprised 191 eighth graders, mean age 13.5 years ($SD = .63$), 69% females. Students attended general public junior-high schools in an urban area, characterized by diverse population ranging from high to mid-low socio-economic status. Students from special education or gifted programs were not included.

**Instruments**

*Teachers’ autonomy support and autonomy suppression:* Students assessed teacher behaviors using the previously validated scale (see: Assor, Kaplan & Roth, 2002) along a 5-point scale ranging from strongly disagree (1) to strongly agree (5). Five items assessed autonomy-supportive teacher behaviors (e.g. "It is important for the teacher that I learn things that interest me"), and 5 items assessed autonomy-suppressing behaviors (see Table 1 for list of all items). As for all the measures used in this study, Cronbach alphas are presented on Table 2.

*Teachers’ psychological control:* Students assessed teachers’ psychological control using 5 of the 7 items developed in a pilot study based on Hambleton’s (1994) guidelines for adapting psychological measures between contexts. Only 5 items were included in the final analysis to gain better model fit in the process of construct validation (see Table 1 for the list of all included items). Students rated teachers’ psychological control along a 5-point scale ranging from strongly disagree (1) to strongly agree (5). Two items are worded in similar way for both construct: Item number 5 in autonomy suppression ("My teacher interrupts me in the middle of activities that interest me") is similar to item number 5 in psychological control ("My teacher often interrupts me"). The autonomy suppression is focused on preventing interesting activities, while the psychological control refers to the general feeling of interruption. that can cause artefact correlation between the constructs, but we preferred to keep both items in the model in order to refrain from mutilation of the original measurements.

*Students’ achievement goal orientation:* The Patterns of Adaptive Learning Scale (PALS; Midgley et al. 1998, 2000) contained three self-report subscales for assessing the three achievement goal orientations along a 5-point scale ranging from strongly disagree (1) to strongly agree (5). Mastery goal orientation included 5 items (e.g., “I like class work that I'll learn from even if I make a lot of mistakes”); performance-approach goal orientation included 6 items (e.g., "I want to do better than other students in my class"); and performance-avoidance goal orientation included 6 items (e.g., "It's very important to me that I don't look stupid in my class").
Procedure

Participants were located from a local branch of a popular youth movement (approx. 55% of the youth in this area are active member in the youth movement according to the official data of the local municipality). The researchers visited this branch on one occasion and spoke with all movement members who were present that day. After explaining the purpose of the study and how to complete the questionnaire, the researchers then gave the children the link to fill in an online survey in their free time, that enabled them to concentrate and not interrupting their other activities. When answering the questions, students were asked to always refer to the teacher who taught them the most classes per week. To enhance compliance and reduce social desirability, the survey was short, clear, and anonymous, comprising only the items reported in the current study.

Results

In the first stage of analysis, we applied structural equation modeling (using AMOS7) to confirm the theoretical structure of teachers’ psychological control and autonomy suppression as two distinct aspects of compelling teaching practices. The model is presented in Figure 1. Model fit indices that were relevant for confirmatory factor analysis (see Schreiber, Nora, Stage, Barlow & King, 2006) supported the hypothesized model: $\chi^2 (34) = 46.7, p = ns; CFI = .97; NFI = .91; RMSEA = .04$. The variables were calculated based on the analysis (as the means of responses), but further examination of the model and correlation matrix was required to establish construct validity.

As seen from the descriptive statistics in Table 2, the psychometric properties of all the variables were satisfactory in terms of internal reliability and normal distribution. Students reported significantly higher levels of autonomy support than autonomy suppression or psychological control, $t (190) = 10.2, 14.8$, respectively, $p's < .001$ with Bonferroni correction. Students also reported a higher level of mastery goals than performance-approach or performance-avoidance goals, $t (190) = 10.2, 10.6$, respectively, $p's < .001$ with Bonferroni correction.

The correlation matrix (Table 3) did not provide sufficient support for the division of psychological control and autonomy suppression. Both constructs were highly correlated, $r = .68, p < .001$, and differences between their associations to other variables ranged only from .01 to .02. This led to the assumption that psychological control and autonomy suppression may represent two aspects of general compelling practices of teachers. Although most correlations were high, the directions supported the assumptions; autonomy support associated positively with mastery goals ($r = .71, p < .001$) and negatively with performance-approach and performance-avoidance goals ($r = -.57, -.60$, respectively, $p's < .001$). In addition, autonomy suppression associated positively with performance-approach and performance-avoidance goals ($r = .52, .65$, respectively, $p's < .001$) and negatively with mastery goals ($r = -.62, p < .001$).
To test the entire hypothesized model, another structural equation modeling was applied. Psychological control and autonomy suppression entered together as a latent variable called *teachers’ compelling behaviors*. Together with teacher autonomy support, they were defined as the antecedents of all three achievement goal orientations (see Figure 2). The model fit indices supported the assumptions: $\chi^2 (6) = 9.78, p = ns$; $CFI = .99$; $NFI = .98$; $RMSEA = .04$. All directional paths corresponded to the hypothesis: Adaptive goal orientations were associated with autonomy support and maladaptive goals were associated with teachers’ compelling practices.

**Discussion**

The current study attempted to uncover empirical evidence supporting the hypothesized association between three theoretical frameworks for motivation – self-determination theory, parental style (adapted to teachers’ behaviors), and goal-orientation theory. At first, the relatively novel concept of teacher psychological control was tested to differentiate it from the more popular concept of autonomy suppression (Assor et al., 2005) or general controlling behaviors (Eshel & Kohavi, 2003; Vansteenkiste, Simons, Lens, Soenens, & Matos, 2005). Although the confirmatory factor analysis supported the distinction, construct validity was rather low. Even if students could cognitively separate teachers’ psychologically intrusive behaviors from their autonomy-suppressive ones, the two sets of behaviors remained very highly correlated. Teachers’ autonomy-suppressive behaviors include some intrusive practices such as interrupting students in the middle of interesting activities or forcing the pace of learning (Assor et al., 2002). Those intrusive practices share some similarities with the more general psychological control (e.g., always trying to change the other person), so it is reasonable to suggest that for now psychological controlling behaviors and autonomy suppression should be considered as two aspects (or two components) of a more general construct of compelling behaviors among teachers.

When examining the associations between student-rated teachers’ compelling behaviors, student-rated teachers’ autonomy support, and students’ self-reported achievement goal orientation – the data supported the hypothesized model. The finding that teachers’ compelling behaviors were negatively associated with mastery goals and positively associated with performance goals suggests that compelling tactics (such as making students feel guilty or forcing them to perform uninteresting activities) may elicit maladaptive goals. Considering the negative effect of such goals on learning (Bandalos, Finney, & Geske, 2003; Cleary & Chen, 2009; Wolters, 2004) and on emotional states in school (Daniels et al., 2008; Kaplan & Maehr, 1999), teachers are advised to avoid such practices. On the other hand, autonomy-supportive behaviors on the part of the teacher (such as enabling choices in learning tasks and furnishing information about a task’s relevance) were associated positively with mastery goal orientations and negatively with...
performance goals. Educators should embrace such practices and try to promote an autonomy-supportive environment (for more practical recommendations see also Reeve, 2005).

An optimistic finding was that students reported significantly higher levels of sense of autonomy in classrooms (than sense of autonomy suppression) and pursuit of mastery goals (than pursuit of performance goals). This indicates that what might seem to be a stressful and coercive environment (for example, due to the pressure of getting good grades) is not necessarily perceived that way among early adolescents. These data should be replicated in future studies to eliminate the possibility that this finding is limited to a specific population or that it is a result of social desirability effects (i.e., that students knew which answers were more socially desirable).

Furthermore, this pioneering study in the field of teachers’ psychological control should be followed up by future research to expand on and verify these preliminary outcomes.

Several limitations of the current study should also be addressed in future studies. First, we refrained from using causal language due to the correlational nature of the study. A longitudinal study may be able to support causal relations between teacher behaviors and students’ goals, as speculated in the path diagram. Second, it is important to note that teacher variables were measured using self-report measures. Some have questioned the ability of people to reflectively report their implicit perception and whether those reports should be analyzed with the common statistical procedures (Fulmer & Frijters, 2009). Future studies may address those questions by using multiple measures to assess teacher behaviors. In addition, the model itself can be elaborated to add more factors that may affect achievement goal (e.g., fear of failure, goal structure) and that may be affected (e.g., learning strategies, achievements).

Nevertheless, despite those limitations, the study provides novel insight into teachers’ psychological controlling behaviors and their interactions with autonomy-suppressive practices. The associations between teachers’ compelling behaviors and students’ goal orientations also provide significant practical implications for teachers and other educational practitioners. Educators should avoid compelling practices (e.g., set the pace of learning, interrupt when student are participating in an interesting activity), and to support autonomy (e.g., provide variety of assignments, allowing some choice, explain the relevance of schoolwork), since those practices are associated with adaptive engagement of students in the classroom.

References


Table 1

List of Items Included in Psychological Control and Autonomy Suppression Measures

Teacher autonomy suppression:

(TASS1) My teacher is willing to listen only to opinions that match her opinion.

(TASS2) My teacher stops me in the middle before I finish saying what I wanted.

(TASS3) My teacher tells me what to do all the time.

(TASS4) My teacher does not allow me to work at my own pace.

(TASS5) My teacher interrupts me in the middle of activities that interest me.

Teacher psychological control:

(TPC1) My teacher always tries to change me.

(TPC2) My teacher clearly shows that I hurt his/her feelings when I fail to live up to his/her expectations.

(TPC3) My teacher makes me feel guilty when I dissatisfy him/her.

(TPC4) My teacher avoids talking with me when I have disappointed him/her.

(TPC5) My teacher often interrupts me.

Note. The initials in parentheses indicate the code of the specific item (as it also appears in the structural equation modeling).
Table 2

Descriptive Statistics of All Variables

<table>
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<tr>
<th>Variable</th>
<th># items</th>
<th>M (SD)</th>
<th>Skewness</th>
<th>Kurtosis</th>
<th>Cronbach α</th>
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<tr>
<td>Perceptions of teachers' behavior</td>
<td></td>
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<td></td>
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<tr>
<td>Autonomy support</td>
<td>7</td>
<td>3.55 (.65)</td>
<td>-.91</td>
<td>.44</td>
<td>.81</td>
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<tr>
<td>Autonomy suppression</td>
<td>5</td>
<td>2.66 (.67)</td>
<td>.52</td>
<td>-.54</td>
<td>.74</td>
</tr>
<tr>
<td>Psychological control</td>
<td>5</td>
<td>2.32 (.63)</td>
<td>.80</td>
<td>-.06</td>
<td>.71</td>
</tr>
<tr>
<td>Students' personal achievement goals</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Mastery</td>
<td>5</td>
<td>3.66 (.70)</td>
<td>-.85</td>
<td>-.33</td>
<td>.80</td>
</tr>
<tr>
<td>Performance-approach</td>
<td>6</td>
<td>2.72 (.70)</td>
<td>.66</td>
<td>-.24</td>
<td>.78</td>
</tr>
<tr>
<td>Performance-avoidance</td>
<td>6</td>
<td>2.70 (.67)</td>
<td>.72</td>
<td>-.18</td>
<td>.77</td>
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</table>

*Note. All items ranged from 1 to 5.*
Table 3

Two-Tailed Correlation Matrix

<table>
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<th>2</th>
<th>3</th>
<th>4</th>
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<td>2. Teacher autonomy suppression</td>
<td>-.67&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Teacher psychological control</td>
<td>-.61&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.68&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-</td>
<td></td>
<td></td>
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<tr>
<td>4. Student mastery goal</td>
<td>.71&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-.62&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-.61&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-</td>
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<td>5. Student performance-approach goal</td>
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<td>.52&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.50&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-.59&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-</td>
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<tr>
<td>6. Student performance-avoidance goal</td>
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<td>.65&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.64&lt;sup&gt;a&lt;/sup&gt;</td>
<td>-.63&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.69&lt;sup&gt;a&lt;/sup&gt;</td>
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Note. <sup>a</sup> p < .001.
Figure 1

Confirmatory factor analysis of psychological control and autonomy suppression.

Note. TPC = teacher psychological control; TASS = teacher autonomy suppression.
Figure 2

Associations between student-rated teacher behaviors and students' personal goals.

Note. All coefficients presented are significant at $p < .05$ or higher.