

Achievement Goals and Maladaptive Learning: An Examination Within the Taiwanese Classroom

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Abstract

The present study investigated how Taiwanese children's perceptions of classroom goal structure and personal goal orientations were related to each other and to their engagement in handicapping and test anxiety. Three hundred and twenty-six sixth-graders completed a self-report survey assessing their achievement goal orientations, perceptions of the classroom goal structure, use of self-handicapping strategies, and test anxiety. Results showed the consistently found effects of the perceived classroom goal structure on the analogous personal goal orientation. Moreover, significant effects of performance goal structure on students' adoption of mastery goals were found in the present study, indicating the adaptive role of perceived multiple goal structures in Taiwanese students' goal pursuits. In addition, findings regarding the significant interacting effects for mastery and performance goals on handicapping and test anxiety suggest that mastery goals may mitigate the maladaptive effects of performance goals. Implications of the findings for education are discussed.

Key words: achievement goals, perceived classroom goal structure, multiple goal structures, self-handicapping, test anxiety

註記：本研究係為國科會補助之研究計畫「我只是不為，而非不能：教室目標結構與學童之成就目標，考試考慮，以及自我阻礙策略的運用之關係 NSC93-2413-H-004-011」之部分研究結果撰寫而成，特致謝忱。

Over the past several decades, achievement goal theory has provided a lens through which to understand students' motivation and achievement-related behaviors in classroom settings (Ames, 1992; Dweck & Legget, 1988; Weiner, 1990; Wolters, 2004). To date, most achievement goal theorists have identified three distinct types of goals: mastery, performance-approach, and performance-avoidance (Church, Elliot, & Gable, 2001; Elliot & Harackiewicz, 1996; Skaalvik, 1997; Urdan, 2004). Mastery goals encourage individuals to increase their competence or achieve task mastery. Performance-approach goals focus students on demonstrating their ability relative to others. Performance-avoidance goals lead students to avoid appearing incompetent or less able than others. Previous research suggested that mastery goals are associated with a variety of adaptive outcomes including preference for challenging work, high intrinsic motivation, persistence in the face of setbacks, and the use of self-regulatory strategies (for reviews, see Dweck & Leggett, 1988; Elliot & Church, 1997; Urdan, 1997). Performance-approach goals are related to higher levels of aspiration, absorption during task engagement, and performance attainment (Elliot & Church, 1997; Elliot & Harackiewicz, 1996; Elliot, McGregor, & Gable, 1999). In contrast, performance-avoidance goals are correlated with threat-related affect while studying, low intrinsic motivation, and low graded performance (Church et al., 2001; Elliot & Church, 1997; Skaalvik, 1997).

Personal Goal Orientations and Classroom Goal Structures

Given the relationships between achievement goals and a range of learning outcomes, it is critical to address the issue of what may lead students to espouse a particular goal orientation. There is growing evidence that the goal-related messages that individuals perceive in the achievement context, namely, the goal structures, exert influences on their adoption of personal achievement goals (e.g., Ames, 1992; Kaplan, Middleton, Urdan, & Midgley, 2002; Urdan, 1997). In the classroom characterized by a mastery goal structure, the instructional practices communicate to students that understanding, intellectual development, and improvement are the reasons for engaging in academic behavior (Midgley et al., 1998; Turner et al., 2002; Urdan, Midgley, & Anderman, 1998). On the other hand, in a classroom where a performance goal structure predominates, students are likely to view outperforming others and getting extrinsic rewards as the reasons for engaging in academic behavior (Turner et al., 2002; Urdan, 2004; Urdan & Midgley, 2003).

Despite documented evidence indicating a positive relation between the perceived classroom goal structure and the individual's adoption of the analogous personal goal orientation, little is known, however, about the manner in which goal structures operate in the cultural context characterized by multidimensional achievement dynamics such as the Taiwanese classroom. Due to the very selective and competitive educational systems, students in Taiwanese society have to compete with their peers from an early age for getting into good schools at the next level. Also, the influences of Confucian doctrines enable Taiwanese students to regard studying hard as an essential way to success at school and in life (Salili, Chiu, & Lai, 2001; Xiang, Lee, & Shen, 2001). With these cultural backgrounds, students in Taiwan are highly likely to perceive emphasis on both mastery and performance goals in the classroom at the same time. On the basis of Turner et al.'s (2002) suggestion that there is merit in exploring the effects of multiple goal structures in quantitative studies (p. 104), in the present study, the effects of the perceived classroom goal structures on Taiwanese children's adoption of personal goal orientations were examined.

Achievement Goals, Self-Handicapping, and Test Anxiety

Achievement goal theory posits that perceptions of the classroom goal structure are related not only to students' adoption of personal goal orientations, but also to their motivation, affect, and behavior within that setting (e.g., Kaplan & Midgley, 1999; Urdan & Midgley, 2003; Wolters, 2004). Accordingly, the achievement goals that students perceive as emphasized in the learning environment may affect their motivational and affective processes such as self-handicapping and test anxiety.

As an attempt to deal with threats to a person's self-worth, self-handicapping refers to the use of such strategies as putting off studying until the last moment or fooling around the night before a test that will serve as ready excuses for potential failure (Covington, 1992). By creating impediments to successful performance, self-handicappers manage to avoid disconfirmation of a desired self-conception. Unfortunately, such a coping mechanism protects their self-image at social and performance costs, particularly over time (Martin, Marsh, & Debus, 2003; Urdan & Midgley, 2001).

In addition to the use of handicapping strategies, high levels of test anxiety have been consistently found to undermine performance attainment (Elliot & McGregor, 1999; Hembree, 1988). Test anxiety refers to the evaluation apprehension that the individual experiences when encountering examinations (Spielberger & Vagg, 1995). The cognitive interference model has been proposed to account for the association between test anxiety and performance decrements. This model posits that test anxiety is likely to elicit cognitive reactions such as concerns about the consequences of failure. In turn, these cognitions may undermine performance by diverting attention from task demands and interfering with retrieval processes (Deffenbacher, 1980; Sarason, 1972).

Since self-handicapping and test anxiety are thought to have debilitating implications for students' achievement striving, it is important to identify the personal and contextual factors that are linked to these undermining processes. In the present study, the effects of students' personal goal orientations and their perceptions of the goals emphasized in the classroom on these maladaptive outcomes were examined. As the majority of the studies exploring the relations between perceived contextual goal structures and these achievement-relevant processes did not include personal goal orientations (Linnenbrink & Pintrich, 2002), the present study was intended to address this limitation by examining the main and interaction effects of perceived goal structures and personal goal orientations on self-handicapping and test anxiety. In doing so, the moderating effects of classroom goal structures on the relations between personal goal orientations and these debilitating outcomes were expected to be detected.

It is also informative to delineate the relationships among study variables. As stated previously, students may engage in self-handicapping as a coping mechanism for self-worth protection. Prior research (Folkman & Lazarus, 1988) has shown that some of the coping strategies that individuals employ for dealing with stressful events may enhance, rather than alleviate, negative emotions. Kaplan and Midgley (1999) further suggested that perceptions of different goal structures in the learning context could lead to the use of more or less adaptive coping strategies. Different affective experiences, in turn, result. Based on these findings, a hypothesized model concerning the relationships among variables for this study was tested using the structural equation modeling approach. In sum, the following questions were addressed in the current research: (a) Do children's mastery, performance-approach, and performance-avoidance goals differ as a function of their perceptions of classroom goal structure? (b) Do children's use of self-handicapping strategies and test anxiety differ according to their perceptions of classroom goal structure as

well as personal goal orientations? (c) What are the mediational relationships among children's perceptions of classroom goal structure, personal goal orientations, handicapping, and test anxiety?

Method

Participants

The participants included 326 sixth-grade students from eleven classes in three elementary schools in the northern part of Taiwan. The 160 girls (49%) and 166 boys ranged in age from 11 years, 0 month to 13 years, 4 months ($M = 12$ years, 3 months). The school districts were primarily middle class in terms of socioeconomic status. All of the participants were Taiwanese.

Procedure

The data were collected at the beginning of the year in sixth grade (September). Students were required to fill out a few questionnaires during regular class time. Two trained research assistants were in each class for the data collection. One research assistant read the items aloud, and the other one walked around the room to check for skipped items and ensure quality responses.

Measures

Participants were instructed to respond to all items on five-point Likert scales ranging from 1 (not at all true of me) to 5 (very true of me). Table 1 displays the description and sample items of all measures used.

Achievement goals. Students' goal orientations were assessed by scales adapted from Elliot and Church's (1997) achievement goals questionnaire. This questionnaire is composed of three six-item scales for each of the achievement goals in the trichotomous model. Three scores representing mastery, performance-approach, and performance-avoidance goals for each student were created accordingly. To test the validity of the scales, a principal-components factor analysis with oblimin rotation on the 18 items was conducted. Three factors were extracted from the analysis. Factor 1 accounted for 28.69% of the total variance and consisted of the six performance-approach goal items. The second factor accounted for 15.71% of the total variance and comprised the six mastery goal items. Factor 3 accounted for 11.89% of the total variance and comprised the six performance-avoidance goal items. Together, the three factors accounted for 56.29% of the total variance.

Perceived classroom goal structures. Students' perceptions of the goal structure in the classroom were assessed by scales adapted from the Patterns of Adaptive Learning Survey (PALS) (Anderman & Midgley, 2002). The mastery goal structure scale is composed of 5 items and the performance goal structure scale includes 6 items. The results of a principal-components factor analysis revealed that these items formed two distinct factors. The factor solution accounted for 58.23% of the total variance. The factor of the mastery goal structure accounted for 37.62% of the total variance, whereas the factor of the performance goal structure accounted for 20.61% of the total variance.

Self-handicapping. Children's use of self-handicapping strategies was assessed using a six-item scale (Urduan et al., 1998). These items were constructed to measure the extent to which students employ a priori strategies to influence self-presentation. Rather than assessing cognitions, this scale measures students' use of active strategies and behaviors. A principal-components factor analysis yielded a single factor accounting

for 50.87% of the total variance, with loadings from .68 to .78.

Test anxiety scale for children. The levels of anxiety that children experience in evaluative situations were measured by the adaptation of the test anxiety scale for children (TASC) (Sarason, Davidson, Lighthall, Watte, & Ruebush, 1960). The scale consists of 28 questions. A high score on the TASC reflects anxiety-like reactions in a variety of test-like situations. To appraise the validity of the scale, Sarason et al. (1960) asked teachers to rate pupils on items derived from the TASC. The correlation between the TASC and the teachers' ratings ($r = .27, p < .001$) supports the validity of the scale. In addition, the test-retest and split-half reliability coefficients were .76 and .84 respectively.

Results

Effects of Perceived Classroom Goal Structures on Children's Personal Goal Orientations

Descriptive statistics and Pearson correlation coefficients are presented in Table 2. Since children's personal goal orientations were related conceptually, these variables were used as dependent variables in the multivariate analysis of variance to explore how children's perceptions of classroom goal structure were associated with their adoption of personal achievement goals. In order to test for interactions, median splits method was employed on the perceived mastery and performance goal structures measures to form two low/high categorical variables. These categorical variables then served as independent variables in the MANOVA. Median-splits was selected for the reason that this very method allowed for the use of MANOVA with multiple dependent variables. In contrast, the use of regression can manage only one dependent variable at a time (Pintrich, 2000). Table 3 displays the means and the standard deviations of students' personal goal orientations according to different perceptions of classroom goal structure.

Before the two-way MANOVA was run, preliminary ANOVA had been performed to compare students of the three elementary schools on each of the variables listed in Table 2. Using the Bonferroni method to correct for inflated probability levels associated with significance when conducting multiple tests (familywise $\alpha = .05$), no significant difference among students of the three schools was found. Additionally, t-tests were performed to determine gender differences in the same variables. Bonferroni method was also employed when making the comparisons. Results of t-tests suggested that boys ($M = 1.74$) differed significantly from girls ($M = 1.56$) in self-handicapping, $t(324) = 7.30, p < .01$. However, preliminary MANOVAs yielded no significant main effects of gender or interacting effects for gender and other independent variables on the dependent variables. Consequently, gender was not included as an independent factor in the subsequent analyses.

Because cell sizes for the independent variables were unequal, Box's M test was conducted to check for the assumption of homogeneity of variance-covariance matrices. The result of this test was not significant ($F = 1.40, p > .05$), indicating that the assumption was not violated. Table 4 summarizes the significant results of the MANOVAs. This set of MANOVA revealed significant main effects for mastery goal structure, Wilks = .84, $F(3, 320) = 21.03, p < .001, \eta^2 = .17$, as well as performance goal structure, Wilks = .69, $F(3, 320) = 48.83, p < .001, \eta^2 = .31$. The univariate analyses of the main effects of mastery goal structure were significant for mastery goal orientation, $F(1, 322) = 48.93, p < .001, \eta^2 = .13$, and performance-avoidance goal orientation, $F(1, 322) = 16.77, p < .001, \eta^2 = .05$.

To correct for inflated probability levels associated with significance when performing multiple

univariate analyses, the familywise α for the MANOVA (.05) was divided by the number of dependent variables (3). According to the correction, the α levels should be .017 for this set of univariate analyses. The univariate analyses of the main effects of performance goal structure were significant for mastery goal orientation, $F(1, 322) = 51.22, p < .001, \eta^2 = .14$, performance-approach goal orientation, $F(1, 322) = 119.93, p < .001, \eta^2 = .27$, and performance-avoidance goal orientation, $F(1, 322) = 43.29, p < .001, \eta^2 = .12$. Post hoc Scheffe analysis showed that in terms of mastery goal orientation, students in the high-mastery-structure/high-performance-structure group ($M = 4.21$) reported significantly higher levels of mastery goal orientation than did students in the high-mastery-structure/low-performance-structure ($M = 3.65$), low-mastery-structure/high-performance-structure ($M = 3.66$), and low-mastery-structure/low-performance-structure groups ($M = 2.94$).

With regard to performance-approach orientation, children in the high-mastery-structure/high-performance-structure ($M = 3.57$) and low-mastery-structure/high-performance-structure ($M = 3.26$) groups (i.e., those with higher performance goal perceptions) were significantly more performance-approach oriented than were children in the high-mastery-structure/low-performance-structure ($M = 2.40$) and low-mastery-structure/low-performance-structure ($M = 2.25$) groups (i.e., those with lower performance goal perceptions). As for performance-avoidance orientation, students in the high-mastery-structure/high-performance-structure ($M = 2.61$), high-mastery-structure/low-performance-structure ($M = 2.16$), and low-mastery-structure/low-performance-structure ($M = 2.42$) groups reported significantly lower levels of performance-avoidance orientation than did students in the low-mastery-structure/high-performance-structure ($M = 2.94$) group. That is, students with higher performance goal perceptions but lower mastery goal perceptions were the most performance-avoidance oriented.

Effects of Perceived Classroom Goal Structures and Personal Goal Orientations on Children's Handicapping and Test Anxiety

To determine whether children's use of self-handicapping strategies and test anxiety varied as a function of their perceptions of goal structure in the classroom as well as personal goal orientations, a five-way MANOVA was performed, with mastery goal structure (high/low), performance goal structure (high/low), mastery goal orientation (high/low), performance-approach goal orientation (high/low), and performance-avoidance goal orientation (high/low) as the between subject factors. This analysis procedure allowed for the examination of the interactions among perceived classroom goal structures and personal goal orientations. Median splits was used once again on the three achievement goal orientation measures (see Table 5 for the means of each category). As indicated in Table 2, self-handicapping and test anxiety were correlated with each other ($r = .37, p < .01$) and thus were used as dependent variables in the five-way MANOVA. The assumption of homogeneity of variance-covariance matrices had been checked before the analyses proceeded. The result of the test was not significant ($F = 1.29, p > .05$), proving that the assumption was met.

Table 4 also displays the results of the five-way MANOVA. As can be seen in Table 4, MANOVA showed significant effects for performance-avoidance goals, Wilks' $\Lambda = .93, F(2, 293) = 11.89, p < .001, \eta^2 = .08$. To determine the appropriate α level, once again, the familywise α for the MANOVA (.05) was divided by the number of the dependent variables (2). As a result, the α levels for this set of univariate analyses should be .025. The univariate analyses of the main effects of performance-avoidance goals were significant for self-handicapping, $F(1, 294) = 8.62, p < .01, \eta^2 = .04$, and test anxiety, $F(1, 294) = 21.61, p < .001, \eta^2 = .08$. In terms of self-handicapping, children high in performance-avoidance orientation ($M =$

1.83) reported engaging significantly more handicapping than did children low in performance-avoidance orientation ($M = 1.53$). For test anxiety, children high in performance-avoidance orientation ($M = 2.40$) also reported significantly higher levels of test anxiety than did children low in performance-avoidance orientation ($M = 1.91$).

MANOVA also yielded significant interacting effects for mastery and performance goal structures, Wilks' $\Lambda = .98$, $F(2, 293) = 3.54$, $p < .05$, $\eta^2 = .03$, as well as significant interacting effects for mastery and performance-approach goal orientations, Wilks' $\Lambda = .98$, $F(2, 293) = 3.02$, $p < .05$, $\eta^2 = .03$. In terms of the interacting effects for mastery and performance goal structures, the univariate tests showed significant effects on self-handicapping, $F(1, 294) = 4.23$, $p < .025$, $\eta^2 = .04$. The test of simple main effects found that within the high-performance-structure group, students who also perceived a strong emphasis on mastery goals in the classroom ($M = 1.44$) reported engaging significantly less handicapping than did students with lower mastery goal perceptions ($M = 1.76$). In other words, when students perceived emphasis on both mastery and performance goals in the classroom, they were less likely to engage in handicapping for self-protection.

As for the interacting effects for mastery and performance-approach goal orientations, the univariate tests were significant for test anxiety, $F(1, 294) = 4.75$, $p < .025$, $\eta^2 = .04$. Results of the test of simple main effects indicated that for children high in performance-approach orientation, those who espoused a mastery orientation simultaneously ($M = 2.19$) reported significantly lower levels of test anxiety than did students low in mastery orientation ($M = 2.51$). Evidently, students' adoption of mastery goals appeared to mitigate their test anxiety that may have been brought about by performance-approach orientation. Table 6 presents the cell means for the mastery structure X performance structure interaction and mastery orientation X performance-approach orientation interaction.

Path Analyses

To explore the mediational relationships among variables for the present study, path analyses by means of structural equation modeling were conducted. Given that structural equation models are not sensitive to interaction effects unless special precautions are taken (Klem, 2000), only the main effects in the path analyses were considered. It was hypothesized that perceived mastery goal structure alleviated students' test anxiety through orienting them to mastery goals as well as preventing them from adopting performance-avoidance goals and moreover, through lessening their need to engage in handicapping. By contrast, perceived performance goal structure was likely to heighten children's test anxiety through encouraging their adoption of performance goals and through increasing the incidence of using self-handicapping strategies to protect self-worth.

The original model with the hypothesized paths did not fit very well: GFI = .91; AGFI = .86; $\chi^2(df = 8) = 30.50$. On the basis of the results of the analysis, a new linkage from perceived performance goal structure to mastery goal orientation was added to improve the fit. The modified model, shown in Figure 1, turned out to be acceptable: GFI = .99; AGFI = .94; $\chi^2(df = 7) = 17.32$, $p < .05$; $\chi^2/df = 2.47$; RMSEA = .06; SRMR = .04; NFI = .98; NNFI = .96; CFI = .99; Hoelter's critical N = 350.88. Although χ^2 value was significant, other evidence, including eight satisfactory indices, suggested a fairly good fit. Moreover, the value of Hoelter's critical N was greater than 250, indicating that the sample size was large enough to yield robust results of data analysis (Hoelter, 1983; Hu & Bentler, 1995).

Except for the newly added positive path between performance goal structure and mastery goal orientation ($\beta = .22$, $p < .001$), children's perceptions of classroom goal structure influenced their

personal goal orientations in the expected direction: mastery goal structure was positively associated with mastery goal orientation ($\beta = .29, p < .001$), but negatively correlated with performance-avoidance goals ($\beta = -.24, p < .001$). Performance goal structure was positively related to both performance-approach and performance-avoidance goals ($\beta = .65, p < .001$ and $\beta = .29, p < .001$, respectively). The paths from personal goal orientations to self-handicapping and test anxiety were in the expected direction, too. Specifically, mastery goals were negatively related to self-handicapping ($\beta = -.27, p < .001$), whereas performance-avoidance goals were positively associated with children's engagement in handicapping ($\beta = .33, p < .001$). Furthermore, both performance-approach and performance-avoidance goals were positively related to test anxiety ($\beta = .12, p < .05$ and $\beta = .43, p < .001$, respectively). Finally, self-handicapping was positively correlated with test anxiety as expected ($\beta = .23, p < .001$).

Discussion

The present study sheds light on the role of perceived multiple goal structures in the individual's achievement goal adoption process in the context of the Taiwanese classroom. Moreover, findings of the present study provide insight into the influences of personal (i.e., achievement goal orientations) and contextual factors (i.e., classroom goal structures) on Taiwanese students' use of self-handicapping strategies and test anxiety.

The Role of Classroom Goal Structures in Children's Adoption of Achievement Goals

Findings of the present research lend support to the consistently found effects of the perceived classroom goal structure on the analogous personal goal orientation (Kaplan & Maehr, 1999; Midgley & Urdan, 1995, 2001; Wolters, 2004). Specifically, students who perceived an emphasis on mastery goals in the classroom tended to adopt mastery goal orientation. And children with higher performance goal perceptions were apt to pursue performance goals. Perceived mastery goal structure also had negative effects on the individual's performance-avoidance goal orientation. Clearly, students' perceptions of an emphasis on mastery goals in the classroom are associated with the decrease in the avoidance motivation.

Intriguingly, significant effects of performance goal structure on students' adoption of mastery goals were found in the present study. In effect, post hoc Scheffe analysis indicated that students in high-mastery-structure/high-performance-structure group reported the highest level of mastery goal orientation, suggesting the adaptive role of perceived multiple goal structures in Taiwanese students' regulation of goal pursuits. It may be that Taiwanese students' particular cultural backgrounds underlie the unusual findings. Given that Taiwanese students are socialized to value effort and to believe that hard work results in outstanding achievement, they may adopt personal mastery goals to facilitate performance when they perceive an emphasis on outperforming others in the learning context. Within the classroom characterized by a strong focus on demonstrating competence, students constantly receive messages about their ability relative to others. Such information may serve as feedback through which children can evaluate their progress and determine whether they have mastered the concepts or skills (Chen, 2001).

The Role of Classroom Goal Structures and Personal Goal Orientations in Children's Handicapping and Test Anxiety

In terms of children's use of self-handicapping strategies, the present findings were consistent with Midgley and Urdan (2001) in that the approach dimension of performance goals did not have influences

on students' handicapping. It was performance-avoidance goal orientation that played a crucial role in children's engagement in handicapping. Avoidance motivation also had a significant impact on test anxiety in the current study. Previous research (Covington, 1985; Schwarzer, van der Ploeg, & Spielberger, 1982) suggested that fear of failure is a central component of test anxiety. Since performance-avoidance regulation leads students to avoid a negative normative outcome, individuals with this type of goal orientation are likely to focus on the possibility of failure. Consequently, anxiety may arise.

The interacting effects for mastery and performance structures on self-handicapping as well as the interacting effects for mastery and performance-approach goals on test anxiety found in the present research are noteworthy. Within the high-performance-structure and high-performance-approach-oriented groups, students who also perceived an emphasis on mastery goals in the classroom or adopted a mastery orientation reported significantly less handicapping or lower levels of test anxiety. An implication that can be drawn from such findings is that balancing a focus on relative ability and competition with mastery-focus instructional practices may alleviate Taiwanese students' need to maneuver defensively and reduce their anxiety when encountering evaluative situations.

With respect to the mediational relationships among variables in the present study, the modified path model apparently sustains results of MANOVA conducted in the present research. As can be seen in Figure 1, performance goal structure indeed positively predicted mastery goal orientation, indicating the previously discussed unique effect of perceived performance structure on Taiwanese students' goal pursuits. In addition, the model displays the mediational role of personal goal orientations in the relations of perceptions of classroom goal structure to handicapping and test anxiety. Furthermore, individuals engaging in handicapping to deal with threats to their self-worth are inclined to experience such negative emotion as anxiety in test situations. Nevertheless, it should be noted that the correlational nature of the present data precludes any causal conclusions about the relations among these variables of interest.

There are two limitations of this study that need to be addressed in future research. First, as stated earlier, the causal links among key variables of the current study cannot be established due to the nature of the data. To clarify the causal relationships, experimental research examining the effects of exposure to learning environments with particular goal structures on students' achievement-relevant outcomes is needed. The other limitation concerns the unusual finding regarding the positive relations between performance goal structure and the three types of personal goal orientations. In this study, the scale assessing the perceived performance goal structure did not distinguish between the approach and avoidance dimensions. Since performance-approach and performance-avoidance goal structures might influence students' achievement striving in different ways, operationalizing classroom performance goal structure as a unitary construct may have confounded the relationships between this goal structure and the outcome variables. Future research using scales separating the avoidance component from the approach component of the classroom performance goal structure might be able to examine the contextual influences on students' motivation, affect, and performance with greater precision (Turner et al., 2002; Urdan & Midgley, 2001).

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Table 1
Information about Achievement Goals Scales, Perceived Classroom Goal Structures Scales, Self-Handicapping Scale, and Test Anxiety Scale for Children

Scale	No. of Items	Cronbach's α	What Assessed	Sample Items
Mastery goals	6	.85	Orientation to develop competence or attain task mastery	I want to learn as much as possible from this class.
Performance-approach goals	6	.87	Orientation to demonstrate ability	It is important to me to do better than the other students.
Performance-avoidance goals	6	.73	Orientation to avoid the demonstration of incompetence	I worry about the possibility of getting a bad grade in this class.
Mastery goal structure	5	.87	Perceptions of mastery goal structure	My teacher recognizes us for trying hard.
Performance goal structure	6	.81	Perceptions of performance goal structure	My teacher tells us how we compare to other students.
Self-handicapping	6	.81	Use of a priori strategies to influence self-presentation	Some students purposely don't try hard in school so that if they don't do well they can say it is because they didn't try. How true is this of you?
Test anxiety	28	.92	Anxiety-like reactions in test situations	Do you worry a lot before you take a test?

Table 2
Descriptive Statistics and Correlations for Study Variables (N = 329)

	M	SD	1	2	3	4	5	6	7
1. Mastery goal	3.60	.92	—						
2. Performance-approach goal	2.87	1.04	.51**	—					
3. Performance-avoidance goal	2.53	.67	.01	.40**	—				
4. Mastery goal structure	3.55	.82	.47**	.29**	-.10	—			
5. Performance goal structure	2.98	.86	.54**	.65**	.32**	.46**	—		
6. Self-handicapping	1.65	.62	-.27**	-.08	.33**	-.25**	-.06	—	
7. Test anxiety	2.14	.59	-.04	.27**	.55**	-.11	.10	.37**	—

Note. ** p < .01

Table 3
Means and Standard Deviations for Students' Personal Goal Orientations by the Profiles of Perceived Classroom Goal Structures

Variable	HMSHPS n = 101		HMSLPS n = 59		LMSHPS n = 63		LMSLPS n = 106	
	M	SD	M	SD	M	SD	M	SD
Mastery Orientation	4.21	.76	3.65	.87	3.66	.73	2.94	.76
Performance-approach	3.57	1.06	2.40	.81	3.26	.88	2.25	.67
Performance-avoidance	2.61	.71	2.16	.60	2.94	.59	2.42	.58

Note. HMSHPS = high-mastery-structure/high-performance-structure; HMSLPS = high-mastery-structure/low-performance-structure; LMSHPS = low-mastery-structure/high-performance-structure; LMSLPS = low-mastery-structure/low-performance-structure.

Table 4
Summary of the Results of the MANOVAs (N = 326)

	Multivariate Analyses (F Values)		Univariate Analyses (F Values)		
	Mastery goal (F Values)	Performance goal (F Values)	Mastery goal	Performance-approach goal	Performance-avoidance goal
Mastery goal structure	21.03***	48.93***	48.93***	5.22	16.77***
Performance goal structure	48.83***	51.22***	51.22***	119.93***	43.29***
	Univariate Analyses (F Values)				
	Multivariate Analyses (F Values)		Univariate Analyses (F Values)		
			Self-handicapping		Test Anxiety
Performance-avoidance goal	11.89***		8.62**		21.61***
Mastery structure X	3.54*		4.23*		1.03
Performance structure					
Mastery goal X	3.02*		1.13		4.75*
Performance-approach goal					

Note. * p < .05. ** p < .01. *** p < .001.

Table 5
Means and Standard Deviations for Self-Handicapping and Test Anxiety According to High/Low Classroom Goal Structures and Personal Goal Orientations

Variable	Mastery structure		Performance structure		Mastery orientation		Performance-approach		Performance-avoidance	
	High n = 160	Low n = 169	High n = 164	Low n = 165	High n = 156	Low n = 173	High n = 144	Low n = 185	High n = 155	Low n = 174
Handicapping										
M	1.65	1.71	1.58	1.77	1.57	1.78	1.74	1.61	1.83	1.53
SD	.59	.62	.61	.63	.55	.66	.64	.60	.68	.54
Test anxiety										
M	2.22	2.17	2.18	2.07	2.13	2.24	2.29	2.09	2.40	1.91
SD	.63	.55	.60	.58	.56	.61	.62	.54	.60	.47

Note. Performance-approach = performance-approach goal orientation; Performance-avoidance = performance-avoidance goal orientation.

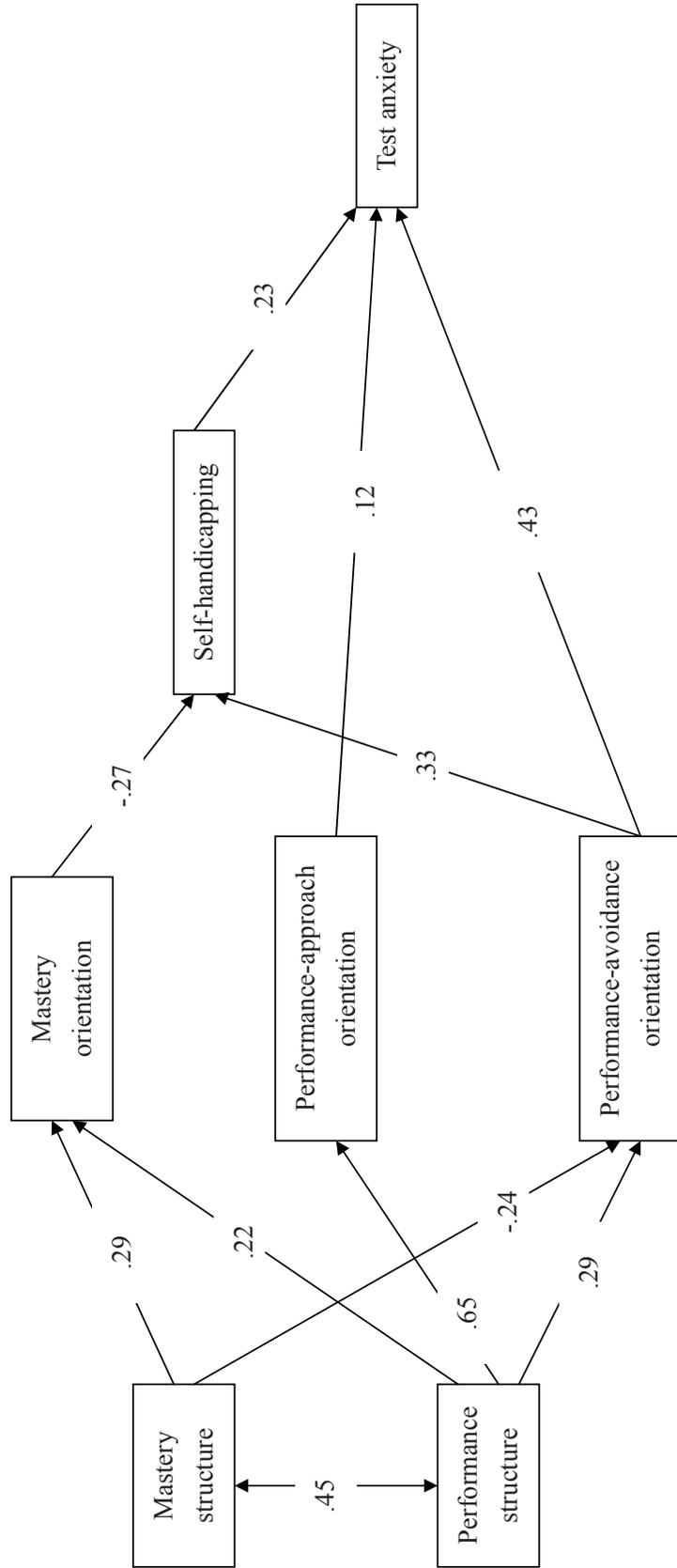
Table 6
Means and Standard Deviations for Self-Handicapping and Test Anxiety for Mastery X Performance Structure and Mastery X Performance-Approach Orientation Interactions

Variable	HMSHPS n = 101		HMSLPS n = 59		LMSHPS n = 63		LMSLPS n = 106		HMHPA n = 96		HMLPA n = 60		LMHPA n = 48		LMLPA n = 125	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD
Handicap	1.44	.54	1.64	.64	1.76	.64	1.79	.62	1.52	.59	1.48	.47	1.80	.71	1.77	.64
Test Anxiety	2.15	.62	2.00	.64	2.28	.54	2.12	.54	2.19	.56	1.97	.53	2.51	.67	2.04	.54

Note. HMSHPS = high-mastery-structure/high-performance-structure; HMSLPS = high-mastery-structure/low-performance-structure; LMSHPS = low-mastery-structure/high-performance-structure; LMSLPS = low-mastery-structure/low-performance-structure; HMHPA = high-mastery/high-performance-approach; HMLPA = high-mastery/low-performance-approach; LMHPA = low-mastery/high-performance-approach; LMLPA = low-mastery/low-performance-approach.

Figure Caption

Figure 1. The best fitting structural equation model delineating the relationships among study variables.



成就目標與國小學童之不適應學習歷程

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摘 要

成就目標理論主張學生所知覺到之教室目標結構會影響其個人所追求之目標取向以及其動機、情意與行為，然而鮮少有研究檢視目標結構在具有多向度成就動力的學習情境(如台灣之教育環境)中之運作情形。本研究的主要目的即在探討台灣學童所知覺到之教室目標結構與其個人所追求之成就目標、自我阻礙策略的使用和考試焦慮間之關係。研究對象為326位國小六年級學童，施測問卷包括成就目標取向量表、教室目標結構知覺量表、自我阻礙量表及考試焦慮量表。研究結果顯示：學童所知覺到的教室目標結構，確實對其追求屬性相符之個人目標具有顯著之預測作用；再者，本研究發現表現目標結構能正向預測台灣學童之精熟目標取向，反映出台灣學童所知覺到的多元目標結構，在其個人追求適應性的成就目標上，具有正向的效應。此外，本研究亦發現精熟與表現目標結構對自我阻礙之交互作用，以及精熟與趨向的表現目標對考試焦慮之交互作用效果皆達顯著，顯示若能在學習環境中強調對精熟目標的追求，應可緩解單單追求表現目標所可能衍生之負面效應。

關鍵詞：成就目標、教室目標結構、多元目標結構、自我阻礙、考試焦慮