

# Revisiting the Trichotomous Achievement Goal Framework for Hong Kong Secondary Students: A Structural Model Analysis

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Controversial research findings in the late 1990s have caused researchers to argue that performance goals can be split into performance-approach and performance-avoidance goals and that performance goals are not totally maladaptive in learning. Research on the trichotomous goals framework by Elliot, McGregor and Gable (1999) found that mastery goals are positive predictors of deep processing, performance-approach goals are positive predictors of surface processing and exam performance, and performance-avoidance goals are positive predictors of surface processing and negative predictors of deep performance and exam performance. The present study examined a structural model outlining the relationships of the three achievement goals, learning strategies and achievement of Hong Kong secondary students. The model was confirmed by LISREL8.5 for Windows with satisfactory goodness of fit index. Results show that mastery goals were significantly and positively related to deep learning strategy but negatively related to surface strategy. Both performance-approach and avoidance goals were significantly related to surface strategy. Mastery goals and performance-approach goals were significantly and positively related to academic achievement but performance-avoidance goals were significantly and negatively related to achievement.

Educators have long considered motivation as an important factor that affects student learning and achievement. Researchers are always interested to know about students' learning motivation and the reasons that motivate students to learn. The relations of students' motivational orientation with metacognitive variables in learning such as learning strategies, self-efficacy and achievement have been documented in literature and the findings have been used to explain different aspects of student learning. Students have different reasons or goals for engaging in academic work or trying to succeed academically. For example, a student does well in

school to demonstrate how smart he is or to gain the approval of peers and/or teachers. Likewise, academic success may represent the opportunity to learn new and interesting information. In other words, some goals are related to mastery of tasks or learning, others demonstration of ability, and there are a number of goals related to specifically social purposes, indicative of desires to achieve particular social outcomes such as acceptance by others. Goals related to mastery of learning or tasks and goals related to demonstration of abilities are known as achievement goals, and goals related to social purposes are known as social goals. Social

goals are also important as achievement goals and pro-social and responsibility goals are related to achievement goals, to positive classroom behavior as well as actual achievement (Wentzel, 1993, 1997, 1998). In short, there are multiple goals that can be used to explain students' engagement in learning or academic activities. All these different goals can affect students' cognition, behavior, and motivation in different ways (Chan, Lai, Leung & Moore, 2005).

The significant influence of achievement motivation on learning has been well documented in literature. In the achievement goal theory, two goals are often posited viz. mastery and performance goals. Mastery goals are also known as learning or task goals and performance goals are also known as ego goals (Ames, 1992; Archer, 1994; Dweck, 1986; Dweck & Leggett, 1988; Goudas, Biddle, & Fox, 1994; Pintrich & Schunk, 2000; Smith, Duda, & Hall, 2002). Individuals holding mastery goals are motivated to comprehend and master knowledge and skill while those who are holding performance goals either tend to demonstrate their ability excellence over others or conceal their weakness (Ames, 1992; Archer, 1994). Many of the research findings have found that persons carrying mastery goals adopt deep learning strategies or elaboration process in learning while persons who are carrying performance goals tend to be associated with surface strategy or rehearsal process in learning (Albaili, 1998; Bandalos, Finney, & Geske, 2003). Individuals holding mastery goals tend to seek challenges and improve themselves. They exert effort in learning and understanding of materials and make use of effective learning strategies, and they are reported to exhibit more positive attitudes toward school, and have a higher level of self-efficacy and self-regulation than those who pursue performance goals (Church, Elliot, & Gable, 2001; Mattern, 2005; Middleton & Midgley, 1997; Pintrich, 2000; Wolters, 2004). Individuals holding performance goals seek to avoid demonstrating their inabilities in order to protect their self-worth and appear to be associated with lack of help seeking, self-handicapping strategies, negative

affect, and low graded performance, especially in contexts which are competitive (Elliot & Church, 1997; Middleton & Midgley, 1997; Harackiewicz, Baron, Carter, Lehto, & Elliot, 1997). Subsequently, researchers in the past often concluded that mastery goals are adaptive and performance goals are maladaptive in learning (Pintrich, & Schunk, 2000).

However, recent studies on achievement goals in the late 1990s have produced inconsistent findings, particularly studies on performance goals. While mastery goals are found to be associated with deep processing, performance goals are sometimes found to be associated with both surface and deep processing (Chan, Lai, Leung & Moore, 2005; Ng, 2000). While several studies indicated the maladaptive nature of performance goals (Urdu, 2004), other studies showed no relation, positive or otherwise, to learning outcomes, suggesting that more studies be done to determine if performance goals are beneficial or disadvantageous to student learning and in what situations (Midgley, Kaplan, & Middleton, 2001). In terms of the relation between achievement goals and performance or academic achievement of students, again varied findings were reported. In a study of African American students, Gutman (2006) found that mastery goals might be more influential in determining achievement and motivation in mathematics than are performance goals during high school transition. Ng (2000) in a study of Hong Kong secondary school students found that a positive self-schema links to the mastery goal and then to deep learning, which is in turn linked to a higher anticipated performance. For performance goal, however, there are two possible paths of linkage with self-schema. One path is adaptive; the self-schema is linked to the deep learning approach and results in higher anticipated performance. The other path is maladaptive; the self-schema is linked to the surface approach and results in lower anticipated performance. Ng (2000) posited that the two opposite mediating effects of performance goals might be interpreted in terms of performance demonstration (approach) goals (seeking to

achieve excellence in performance) and performance avoidance goals (seeking to avoid looking stupid). The interpretation is in line with the hypothesis of researchers that performance goals be split into performance-approach and performance-avoidance goals (Elliot & Harackiewicz, 1996). Other studies showed no relation between mastery goals and academic achievement, instead performance goals were found to relate to academic achievement or exam results (Elliot, McGregor & Gable, 1999; Greene, & Miller, 1996). In other words, performance goals are not necessarily maladaptive in learning and the goals lead to good performance or achievement. The varied findings with regard to mastery and performance goals have led researchers to doubt the validity of the traditional dichotomous goal theory to explain for the full facets of learning. They argued that performance goals might be split into two separate goals labeled performance-approach and approach-avoidance goals. The dichotomous classification of goal theory was thus changed to a trichotomous goal framework (Elliot, 1997, 1999; Harackiewicz, Barron, & Elliot, 1998; Harackiewicz, Barron, & Pintrich, 2002). Similarly, mastery or learning goals could further be split into two goals, the mastery-approach and mastery-avoidance goals but the tetrachotomous goal hypothesis or framework has seldom been tested and validated.

So far, many of the achievement goals research were centered on the dichotomous goal theory (e.g. Roedel, Schraw, & Plake, 1994) and studies on the trichotomous goal framework are not plentiful. Moreover, the studies were conducted mainly in North America and sparse findings were reported for non-Western countries including the Chinese culture. Among the studies on trichotomous goal framework, scales were developed to measure the three goals (Finney, Piper, & Barron, 2004; Midgley et al., 2001); and their impact on the three achievement goals in learning, examining the relationships of the goals with different constructs, such as persistence, learning strategies, effort and achievement.

Noticeably, works that are often cited in the literature are those of Elliot and his colleagues (e.g. Elliot, 1999; Elliot & Church, 1997; Urdan, 2004; Vermunt & Vermetten, 2004; Wolters, 2004). Research on the trichotomous goal framework by Elliot (1999) found that mastery goals are positive predictors of deep processing, performance-approach goals are positive predictors of surface processing and exam performance, and performance-avoidance goals are positive predictors of surface processing and negative predictors of deep performance and examination performance. Although categorizing performance goals into performance-approach and performance-avoidance has done much to clarify the results associated with performance goals, it has not yet settled the debate regarding the effects of performance-approach goals as more papers have generated results regarding both beneficial and harmful effects of pursuing performance-approach goals (Urdan, 2004). This implies that more research is needed to study the effects of performance-approach goals versus performance-avoidance goals and in relation to the effects of mastery goals in student learning.

In addition, studies by Midgley et al. (2001) suggested that the benefits of performance-approach goals may not apply equally to all students and that there may be cultural differences among students in the pursuit and consequences of performance-approach goals that may not have been adequately researched (Urdan, 2004). In fact, the extent to which the trichotomous goal theory is applicable to the Eastern and Chinese culture and the effects of performance-approach and performance-avoidance goals on Chinese students' learning may be worth investigating. Interestingly, Tao and Hong (2000) found that the achievement goals of Chinese students differ from that of students of North America. This might be due to differences in cultural value and meaning attached to achievement goals. In the American culture, mastery or learning goals are often found negatively correlated with performance goals whereas in the Chinese

culture, mastery or learning goals are often positively correlated with performance goals (Tao & Hong, 2000; Salili, Chiu, & Lai, 2001). In their studies, Tao and Hong (2000) argued that academic achievement is largely an individual endeavor in American culture, but is a social endeavor in Chinese culture. They also found that the endorsement of performance goals was positively correlated with the motivation to fulfill expectations of significant others and to value outcomes that are socially approved (Yang & Yu, 1988), whereas the endorsement of learning goals was positively correlated with the motivation to fulfill personal, intrinsic learning motives and internal standards (Yang & Yu, 1988). Their studies have suggested that achievement in Chinese culture is a moral obligation. The findings lend support to their arguments and the effect of cultural differences on goals in achievement motivation.

Therefore, the present study aims to examine the trichotomous achievement goal framework by testing a proposed structural model that outlines the relationships of the three achievement goals (mastery, performance-approach and performance-avoidance goals), learning strategies (surface and deep strategies) and achievement of Hong Kong secondary students. Path analysis was applied to study the relations of the variables and the structural model was tested by confirmatory factor analysis with LISREL 8.5 for Windows.

## AIM OF THE STUDY

This study aims to explore the relationships of mastery goals, performance-approach goals, performance-avoidance goals, surface and deep strategies and achievement of Hong Kong secondary school students. A structural model was proposed with paths drawn to depict the relations among the variables. In the model, mastery, performance-approach and performance-avoidance goals were the predictor variables, surface and deep learning strategies the mediator variables and academic achievement

the dependent variable. The relations between the variables: achievement goals (mastery, performance-approach and performance-avoidance goals), learning strategies (surface and deep strategies) and academic achievement positioned in the structural model were examined by path analysis to find out whether the research findings in the Western culture that mastery goals are adaptive and performance goals (performance-approach and performance-avoidance) are maladaptive in student learning are applicable to the Hong Kong Chinese cultural context. The model was tested by confirmatory factor analysis using LISREL 8.5 for Windows to examine how the model fit with the data.

## METHOD

A self-report questionnaire consisting of several scales (see "Measuring Instruments" section) was administered to a sample of secondary students to examine their achievement goals and learning strategies. Consent was sought from the school heads and parents for the students to participate in the study. The questionnaires were distributed to the students for completion in class. In completing the questionnaires, students were also asked to supply their demographic information and report their last exam results in different categories of academic achievement.

### *Participants*

The participants comprised a convenience sample of 1381 secondary students from three schools, two located in the urban area and one in the subrural area. For the two schools located in the urban area, one a band one school, and the other a band two school. The school in the subrural area is between band one and band two. In Hong Kong, schools in each district are categorized into different bands based on the academic standard of individual schools, band one being the top and band three the bottom. This is reflected by the school students' performance in the public examination. Of the 1381 secondary students,

786 (56.9%) were male and 595 (43.1%) were female. In terms of grade level, 735 (53.2%) were junior secondary students (Form 1 to Form 3) and 646 (46.8%) were senior secondary students (Form 4 to Form 7). Five categories of academic achievement were provided for students to fill in for their exam results: low, middle-low, middle, middle-high and high. Of the responses, 121 (8.8%) were low, 298 (21.6%) were middle-low, 506 (36.6%) were middle, 332 (24.0%) were middle-high and 124 (9.0%) were high in academic achievement. The five categories were then converted into numerical values with 5 = high, 4 = mid high, 3 = middle, 2 = mid-low and 1 = low.

### ***Measuring Instruments***

The following scales were used to assess the achievement goals and learning strategies:

- a) *Achievement goals*: The scale used to measure achievement goals was adapted from the Achievement Goal Questionnaire (AGQ) developed by Elliot and Church (1997). The AGQ consists of three subscales: mastery goals (6 items), performance-approach goals (6 items) and performance-avoidance goals (6 items). The reported reliability alphas for the measures of mastery, performance-approach and performance-avoidance goals were .89, .91, and .77 respectively, based on a study of a sample of 204 undergraduates enrolled in a psychology course at the University of Rochester. Illustrative examples of items included "It is important for me to understand the content of this course as thoroughly as possible" (*mastery goals*), "It is important for me to do better than the other students" (*performance-approach goals*) and "I just want to avoid doing poorly in this class" (*performance-avoidance goals*). To minimize the total number of items used in the present study, only five items each from the subscales of mastery, performance-approach and performance-avoidance goals were used, rated on a six-point Likert scale, ranging from 1 (strongly disagree) to 6 (strongly agree). The items were selected according to factor loadings and the face/content validity of the items and consensus from a panel of three lecturers who are experienced in teaching educational psychology in both Chinese and English courses in a Hong Kong university. The subscale items were then translated into the Chinese version, moderated and discussed by the panel members until consensus was reached that the contents of the English and Chinese versions matched in meaning. Confirmatory factor analysis of the three subscale items were then conducted, all showing goodness of fit index greater than .90, which was considered satisfactory for further analysis (Bentler & Bonnett, 1980). Reliability alphas of the mastery, performance-approach and performance-avoidance goals in the present study were .78, .86 and .66 respectively, and thus acceptable for the study (Nunnally, 1978).
- b) *Learning strategies*: The scale used to measure learning strategies was adapted from Biggs' Revised Two-factor Study Process Questionnaire (R-SPQ-2F, Biggs, Kember & Leung, 2001). The R-SPQ-2F questionnaire consists of four subscales, deep motive (5 items), deep strategy (5 items), surface motive (5 items) and surface strategy (5 items). The scale was developed and validated from the Biggs' Study Process Questionnaire (SPQ) and claimed to be an improved version to measure learning strategies adopted by students. The reported reliability alphas of the deep strategy and surface strategy subscales in the R-SPQ-2F questionnaire were .63 and .57 respectively. In the present study, only the deep and surface strategy subscale items (5 items each) were

used and participants were asked to rate the items on a six-point Likert scale, ranging from 1 (strongly disagree) to 6 (strongly agree). Illustrative examples of items included “I find that I have to do enough work on a topic so that I can form my own conclusion before I am satisfied” (*deep strategy*) and “I learn some things by rote, going over and over them until I know them by heart even if I do not understand them” (*surface strategy*). The subscale items of deep strategy and surface strategy were translated into Chinese, moderated and discussed by the same panel members until consensus was reached that the contents of the English and Chinese versions matched in meaning. Confirmatory factor analysis of the subscale items were conducted followed by reliability analysis. Confirmatory factor analysis of the deep and surface strategy subscale items also showed goodness of fit index above .90, and the reliability alphas of the deep and surface strategy subscales for the present study were .75 and .66 respectively. Psychometric properties support the use of the two strategy subscales in the present study.

### ***Preliminary analysis of subscales***

As reported in the “Instruments” section, preliminary confirmatory factor analysis followed by reliability analysis were conducted to validate the adopted scales and subscales in the measurement of achievement goals and learning strategies; and it was found that the adopted scales and subscales were acceptable for the present study.

To further improve the scales used in the present study, items with factor loading less than .45 were deleted from the subscales of mastery, performance-approach and performance-avoidance goals; and deep and surface strategies in the path analysis of the proposed structural model.

### ***Correlational analysis***

Pearson correlation analysis was first conducted to examine the relations between the achievement goals (mastery, performance-approach and performance-avoidance goals), learning strategies (deep and surface strategies) and achievement before applying path analysis to the structural model.

### ***Path analysis of the structural model***

A structural model was proposed to be tested in the path analysis. In the model, it was hypothesized that mastery goal, performance-approach goals and performance-avoidance goals had a direct effect on academic achievement as well as an indirect effect on academic achievement, mediated by the learning strategies (deep and surface) adopted by the students. The model was tested with structural equation modeling techniques using LISREL 8.5 for Windows to examine the fitness of the input data into the proposed model. The path coefficients computed from path analysis reflected the magnitude of relation or predictor effect of the achievement goals (mastery, performance-approach and performance-avoidance goals) on learning strategies (deep and surface) and academic achievement. Likewise, it also showed the relation of the two learning strategies to academic achievement.

## **RESULTS**

Table 1 shows the correlation matrix between the achievement goals, learning strategies and achievement. In the table, significant pairs of correlation were identified. First, mastery and performance goals (approach and avoidance) were positively and significantly related and the correlations were moderate. Second, mastery and performance goals had significant correlations with academic achievement. While mastery and performance-approach goals were positively and significantly related to academic achievement, performance-avoidance goals were negatively and significantly related to academic achievement, however the relation was very weak. Deep strategy

**Table 1**  
**Correlation Matrix (Pearson Correlation) between achievement goals,**  
**learning strategies and academic achievement**

	Mastery	Perf_ap	Perf_av	Deep	Surface	Ach
Mastery	1					
Perf_ap	.41**	1				
Perf_av	.18**	.35**	1			
Deep	.55**	.34**	.12**	1		
Surface	-.02	.19**	.25**	.09**	1	
Ach	.22**	.19**	-.08**	.21**	.00	1

\*\*  $p < .01$

Note:

Mastery = Mastery goals

Perf\_ap = Performance-approach goals

Perf\_av = performance- avoidance goals

Deep = Deep strategy

Surface = Surface strategy

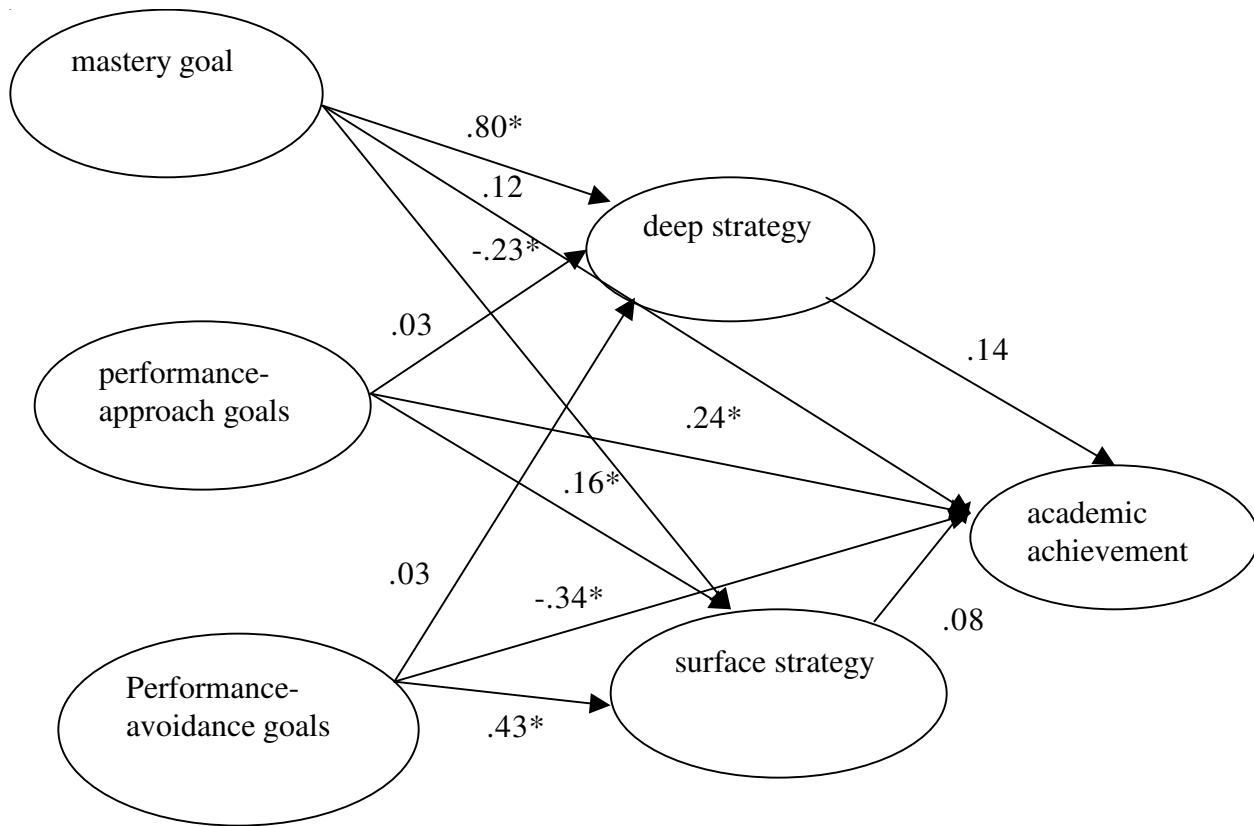
Ach = Academic achievement

was positively and significantly related to academic achievement but surface strategy was not significantly related to academic achievement. In general, deep and surface strategies were positively and significantly correlated with all three achievement goals with one exception – surface strategy as negatively related with mastery goal but the relation was not significant. Deep strategy was significantly related to surface strategy but the correlation was very weak, and the significance was probably due to the relatively large sample size.

Figure 1 shows the results of path analysis. The figure shows the estimated standardized coefficients for the paths linking the three goals of achievement motivation, the two learning strategies and academic achievement. The path coefficients that are asterisked are significant at .05 level. The model achieves an overall good fit with the GFI = .96, AGFI = .94, NNFI = .94, CFI = .96, RMSEA = .052, RMR = .073. This implies that the pattern of relationships taken as a whole as hypothesized by the model fits the data well.

Figure 1 it shows that mastery goals had positive and significant relation with deep strategy but not with academic achievement. The relation between mastery goals and deep strategy was very strong

as indicated by the high value of the path coefficient ( $\beta = .80, p < .05$ ). Although positively related to academic achievement, the relation with mastery goals was weak and insignificant ( $\beta = .14, p > .05$ ). In other words, mastery goals had strong direct predictor effect on deep strategy but a weak predictor effect on academic achievement. Performance-approach goals had positive and significant relations with surface strategy ( $\beta = .16, p < .05$ ) and academic achievement ( $\beta = .24, p < .05$ ) but the relations were moderately weak to moderate. Performance-approach goals had positive but insignificant relation with deep strategy and the relation was very weak ( $\beta = .03, p > .05$ ). That is, performance-approach goals had significant but moderately weak predictor effects on academic achievement and surface strategy. Performance-avoidance goals were significantly and positively related to surface strategy and the relation was moderate ( $\beta = .43, p < .05$ ). The relation between performance-avoidance goals and academic achievement was significant and negative, and the relation was moderate ( $\beta = -.34, p < .05$ ). There were no significant relations between deep strategy ( $\beta = .14, p > .05$ ) and surface strategy ( $\beta = .08, p > .05$ ) and academic achievement and the relations were weak and very weak respectively.



**Figure 1.**

**Path analysis of a structural model of achievement goals, learning strategies and academic achievement with standardized estimates of path coefficients**

In short, performance-avoidance goals had significant and moderately positive predictor effect on surface strategy but significant and moderately negative predictor effect on academic achievement

## DISCUSSION

All the three achievement goals and two learning strategies were found to be correlated with the sample under study and this argument was supported by the results of the correlation analysis. The correlation between mastery and performance goals of the sampled Hong Kong students in the present study (Please refer to Table 1) suggests that Hong Kong students adopt a combination of mastery and performance goals and that mastery and performance goals are not exclusive of each

other. Hence, the former conceptualization of achievement goals in terms of dichotomous categories is problematic as it may imply that these goals are mutually exclusive. The present finding is similar to that reported by Salili, Chiu and Lai (2001) for a group of Hong Kong Chinese secondary students, wherein mastery and performance goals were negatively correlated for both Chinese and European high school students in Canada (Salili, Chiu & Lai, 2001). The differences signify a possible influence of culture and context of learning on students' motivational orientation. The present finding that Hong Kong Chinese students adopt both mastery and performance goals may be due to the fact that while conceiving learning as to gain knowledge and understanding is important, to achieve high grade and excel in performance in the competitive examination is even more important for

social mobility and good career prospects. Such beliefs have been rooted since ancient China and continue in Hong Kong (Salili, Chiu & Lai, 2001).

This study sought to analyze the predictor-effect relationships between achievement goals (mastery, performance-approach and performance-avoidance goals), learning strategies (deep and surface learning strategies) and academic achievement. It was hypothesized that the different achievement goals held by teacher education students have direct predictor effects on their adopted learning strategies and indirect predictor effects on academic achievement, mediated by the learning strategies. Also, from research literature, it was expected that the three achievement goals would have direct predictor effects on academic achievement, exemplifying the adaptive and maladaptive effects of the different achievement goals. The specific relations between the variables, such as the achievement goals (mastery, performance-approach and performance-avoidance goals), learning strategies (deep and surface strategies) and academic achievement indicated in proposed structural model were validated by confirmatory factor analysis and path analysis.

As indicated in the model, mastery goals are positive predictors of deep strategy and academic achievement; performance-approach goals are positive predictors of deep strategy and academic achievement; whereas performance-avoidance goals are positive predictors of surface strategy but negative predictors of academic achievement. Deep strategy positively predicts academic achievement and surface strategy negatively predicts academic achievement. In particular, mastery goals are found to be a strong to very strong direct predictor effect on mastery strategy. On the other hand, performance-avoidance goals had moderate predictor effect on surface strategy and academic achievement, and its relation with academic achievement was negative, supporting the assumption or notion that performance-avoidance goals are maladaptive in learning.

In this study, it was interesting and unexpected to find that performance-approach goals have a

very weak predictor effect on deep strategy and that performance-avoidance goals are positively related to deep strategy although the relation is insignificant and not very strong. Meanwhile, performance-approach goals are positively and significantly related to academic achievement and mastery goals have no significant predictor effect on academic achievement. The relations could be explained in the following paragraphs when we consider the meaning of performance-approach goals and mastery goals. Student holding performance-approach goals intend to demonstrate their ability to outperform others in examinations and assessments. They would adopt either the deep or surface strategy and in some instance, even both as long as the strategies enable them to achieve a good result. This may explain why in the present study performance-approach goals did not have a significant and strong predictor effect on deep strategy as one might expect. Meanwhile, the significant relation between performance-approach goals and surface strategy might be a reflection of the learning contexts and nature of assessments that cause the students to utilize surface strategy if the strategy works for them during exams and enables them to perform better than the others. Though significantly related, the small magnitude of the path coefficient indicates that the relation is not strong, unlike that with performance-avoidance goals. Parallel to this, students holding a mastery goal intend to improve their competency, understanding of learned materials and mastery of skills rather than demonstrate their ability or performance above others. Subsequently, students holding mastery goals would adopt the deep strategy, which would improve their academic achievement that might not be at a significant level, depending on the type of examination or assessment tasks. All in all, the results can be interpreted that the more intrinsically motivated the students are, the more likely they would adopt a deep learning strategy and the less likely they would adopt a surface learning strategy. In contrast, students holding performance-avoidance goals are probably not intrinsically motivated and are greatly

inclined towards using a surface strategy, hoping this would help them to pass the examination and assessment.

In conclusion, the results of the present study generally resemble the findings reported in the literature about the nature and influence of achievement goals: mastery, performance-approach and avoidance goals on learning. Instead of simply categorizing the achievement goals into two, the trichotomous achievement goal framework appears to student learning and achievement better. In the past, the traditional dichotomy theory of achievement goals stated that mastery goals are adaptive and performance goals are maladaptive in learning. With the dichotomous goal theory, it is difficult to account for the controversial findings that are associated with performance goals. The trichotomous achievement goal framework explains the varied results due to the different nature of performance-approach and performance-avoidance goals. It is the performance-avoidance goals that are associated with surface strategy and which have a negative influence on academic achievement that would be described as maladaptive in learning. On the other hand, performance-approach goals are associated with both surface and deep strategies and have a positive influence on academic achievement, thus explaining why in some studies, performance goals are not maladaptive as previously assumed.

In the present study, path analysis of the proposed structural model well demonstrate and support the hypothesized relations of the variables. The similarity of the findings in the present study to that reported in the literature on Western culture (mainly North America) do lend support to the validity of the trichotomous achievement goal framework and its applicability to explain student learning in the Hong Kong cultural context. In addition, the scales developed in the Western countries to measure the trichotomous achievement goals by Elliot (1997, 1999) in the categorization of performance into performance-approach and performance-avoidance goals were also found applicable to the Hong Kong Chinese cultural context. The present study contributes not only to

the validation of the trichotomous achievement goal framework in the Hong Kong Chinese culture but also found relations among the three achievement goals, learning strategies and academic achievement for Hong Kong secondary students. In addition, the present study also developed validated scales in the Chinese version, adapted from scales developed in the West to measure the trichotomous goals and learning strategies. The validated instruments in the Chinese version offer opportunities for future empirical studies of Hong Kong Chinese student learning.

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