

Chinese Student Teachers' Achievement Goal Orientations – Does Collectivism really matter?

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Introduction

Over the past several decades of research, consistent differences in academic achievement among students of various racial groups and of different nations have been well-documented. More recent models in accounting for cross-national differences in academic achievement centered on the importance of cultural values (Chen & Uttal, 1988; Stevenson & Lee, 1990). Chen, Stevenson, Hayward, and Burgess (1995) advocated that cultural values and beliefs would be important antecedents affecting students' motivation and learning behaviour, subsequently lead to the academic achievement.

Hau and Salili (1996) asserted that: "Cultural values of collectivism and emphasis on hard work, effort and perseverance have important implications on Chinese achievement orientations. There is some converging empirical evidence from a number of researches suggesting that Chinese are learning goal oriented and attribute their performance more to their effort than to their ability" (p. 129). Based on these speculations, it appears that cultural values such as collectivism and individualism may have influence on the motivational orientations adopted by the students. Recent researches on achievement goals had identified two goals: learning goal and performance goal. There are quite a number of researches that linked achievement goals and the learning strategies/cognitive engagement endorsed/spent by the students. Nolen's (1988) study implicated that task orientation (learning goal oriented) was positively correlated with use of strategies requiring deep processing of information. Greene and Miller's (1996) study had its significance in identifying that performance goals are positively correlated with shallow cognitive engagement. Kong and Hau's (1995) study implicated learning goal orientation is more adaptive in Chinese students. Therefore, with respect to the above findings, converging and significant conclusion can be drawn that achievement goal orientations have direct

influences on the learning strategies/cognitive engagement endorse/spent by students in academic achievement behaviours.

In sum, students' learning behaviours should be studied through the mediational effects from cultural and socio-cultural factors. However, most of the studies were based on speculations rather than empirical investigations. It is therefore advocated to examine the relationships through systematic investigation of cultural values, achievement goals and learning strategies.

Theoretical Contribution

The findings should enable us understand better these cultural, motivation and learning characteristics of learners and to contribute in expanding knowledge to theories in these fields. The findings should also help us develop a more comprehensive model in understanding the achieving outcomes among Hong Kong Chinese student teachers. As part of the investigation, the instruments for measuring collectivism and individualism, learning goal, performance goal, and various dimensions of learning strategies are tested and validated. It would also help us better understand how well Western theories and measuring instruments can be applied to Chinese students samples. The applicability of Western theories and inventories to Chinese context is scrutinized. It would certainly shed some light on the cross-cultural generalizability of Western theories to local Chinese student teachers.

Practical Contribution

The findings of this study should help teacher educators develop better teaching strategies, implementing necessary curriculum programmes to cater for the needs of the student teachers. Hence the institutional resources and facilities can be adjusted and modified aiming at providing a better environment that is conducive to learning. The findings of the present study may also facilitate and support future intervention programmes to help improve and facilitate student teachers' desirable achievement goals and learning strategies for their pursuit of study programmes.

Research Question

What are the structural relationships, in terms of magnitude and direction of the path coefficients, connecting cultural values (collectivism, individualism) with achievement goals and learning strategies?

Hypotheses

- (i) There are significant relationships between cultural values with achievement goals at the $p = .05$ level. Collectivism would exert positive and significant influence on learning goal, whereas individualism would exert positive and significant effect on performance goal.
- (ii) There are significant relationships between achievement goals and learning strategies at the $p = .05$ level. Learning goal would have positive and significant effect on rehearsal, elaboration, organization, critical thinking, and metacognitive self-regulation. Performance goal would have no significant effect on rehearsal, elaboration, organization, critical thinking, and metacognitive self-regulation.

Method

338 student teachers from the first or second year Certificate of Education (CE) course of Hong Kong Institute of Education were selected for the present study. The questionnaires were administered to a cohort group of CE student teachers and were collected for data analysis.

Measurement of the Variables

Cultural Values

The participants' cultural values orientations were measured by the Collectivism Scale developed by Singelis, Triandis, Bhawuk, & Gelfand (1995). The instrument contains 29 items to which the respondents were asked to respond on 7-point rating scales. The instrument has four subscales: horizontal collectivism (HC) and vertical collectivism (VC); horizontal individualism (HI) and vertical individualism (VI). The participants were

asked to place their perceptions on the value orientations along these four rating subscales. 1=Strongly Disagree and 7= Strongly Agree. HI was based on 7 items, including “I often do my own thing”; VI was based on 8 items, including “when another person does better than I do, I get tense and aroused”; HC was based on 6 items, including “The well-being of my coworkers is important to me”. VC was based on 8 items, including “It is important to me that I respect the decisions made by my groups”. The instrument was translated into Chinese and was administered to participants to respond.

Achievement Goal Orientations

Achievement goal orientations was measured by the Achievement Goal Inventory developed by Roedel, Schraw, & Plake (1994). This instrument was to measure the attitudes and behaviours that were associated with the learning and performance goal orientations. Respondents were asked to indicate how true each item was of themselves. It contains 2 subscales: Learning Goal and Performance Goal. There were a total of 17 items each with a 5-point Likert scale rating ranging from 5 = ‘Very truly like of me’ to 1 = ‘Not truly like of me’. Sample items of the Learning Goal Orientation were “I enjoy challenging school assignments”; “I am very determined to reach my goals”. Sample items for the Performance Goal Orientation were “It is important for me to always do better than others”; “I like others to think I know a lot”. The instrument was also translated into Chinese and was administered to participants to respond.

Learning Strategies

For the measurement of learning strategies, part of the Motivated Strategy of Learning Questionnaire (MSLQ) developed by Pintrich, Smith, Garcia, & McKeachie, (1993), was adapted and used in the present study. The adapted instrument contains 31 items, to be answered on a 7-point scale from 1 = ‘Never true of me’ to 7 = ‘Always true of me’. It is divided into 5 subscales: Rehearsal, Elaboration, Organization, Critical Thinking and Metacognitive Self-regulation. Sample item for the rehearsal strategy was “I memorize key words to remind me of the important concepts in this class”. Sample item for the elaboration strategy was “I try to relate ideas in this subject to those in other

courses whenever possible”. Sample item for the organization strategy was: “When I study the readings for this course, I outline the material to help me organize my thoughts”. For the critical thinking strategy, sample item included: “I often find myself questioning things I hear or read in this course to decide if I find them convincing”. For the metacognitive self-regulation strategy, sample item included: “When reading for this course, I make up questions to help focus my reading”. This instrument was also translated into Chinese and was administered to participants to respond.

Results

Descriptive Statistics and Correlations

Table 1 shows the mean, standard deviations and correlations for cultural values, achievement goals and learning strategies. It can be seen that all variables of collectivism, individualism, learning goal, performance goal, rehearsal, elaboration, organization, critical thinking and metacognitive self-regulation were significantly and positively correlated with each other.

Table 1. Means, standard deviations, zero-order correlations for cultural values, achievement goals and learning strategies

Variable	1	2	3	4	5	6	7	8	9
1. Collectivism	--								
2. Individualism	.33	--							
3. Learning goal	.33	.39	--						
4. Performance goal	.25	.51	.22	--					
5. Rehearsal	.32	.23	.41	.23	--				
6. Elaboration	.31	.28	.48	.18	.72	--			
7. Organization	.31	.23	.43	.16	.74	.73	--		
8. Critical thinking	.28	.32	.42	.20	.72	.83	.69	--	
9. Metacognitive self-regulation	.32	.25	.44	.16	.77	.77	.75	.81	--
<u>M</u>	4.56	4.46	3.55	3.44	4.28	4.48	4.33	4.23	4.14
<u>SD</u>	.51	.61	.48	.60	.92	.87	.94	.89	.64

Note : All correlations are significant at the .05 level

Reliability

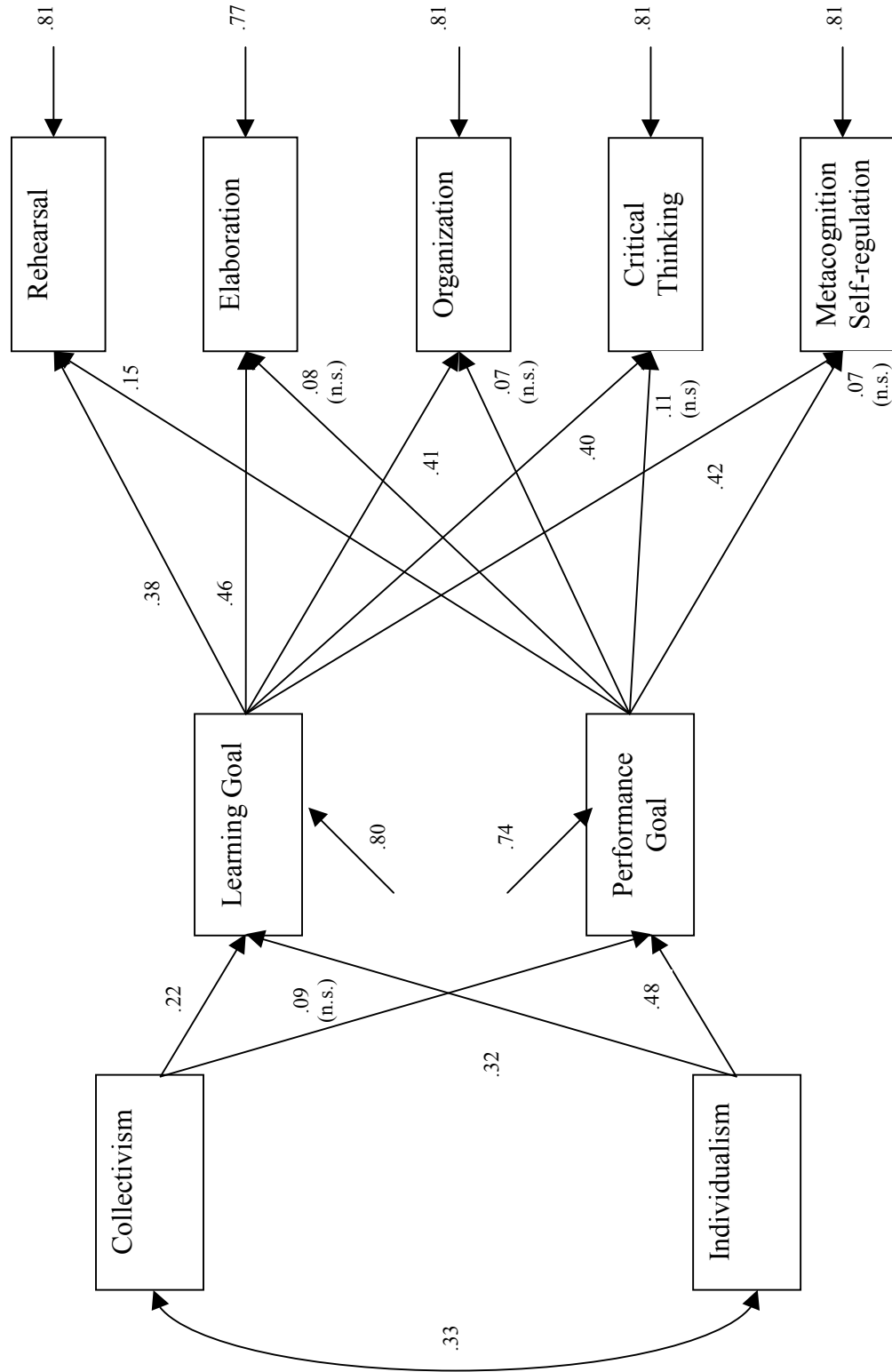
Table 2. Reliability coefficient alphas for the cultural values, achievement goals, and learning strategies scales

Scales	Coefficient Alphas
Cultural Values	
Horizontal individualism	.77
Vertical individualism	.70
Horizontal collectivism	.59
Vertical collectivism	.64
Individualism	.79
Collectivism	.77
Achievement Goal Orientations	
Learning goal	.84
Performance goal	.73
Learning Strategies	
Rehearsal	.79
Elaboration	.87
Organization	.71
Critical Thinking	.82
Meta-cognitive Self-regulation	.78

Path Analysis

From Figure 1, the path coefficients from collectivism to learning goal was $\gamma = +.22$, but the path coefficient from collectivism to performance goal was found to be $\gamma = .09$, which was non-significant. However, the path coefficients from individualism to learning goal and performance goal were respectively $\gamma = +.32$ and $\gamma = +.48$, which were significant. Next, the path coefficients from learning goal to the five learning strategies: rehearsal, elaboration, organization, critical thinking and metacognitive self-regulation were respectively $\beta = +.38$, $\beta = +.46$, $\beta = +.41$, $\beta = +.40$ and $\beta = +.42$. However, the path coefficients from performance goal to rehearsal, elaboration, organization, critical thinking and metacognitive self-regulation were respectively $\beta = +.15$ (significant), $\beta = .08$, $\beta = .07$, $\beta = .11$ and $\beta = .07$, which were all non-significant (see Figure 1).

Figure 1. The path model showing the effects of the cultural values on the achievement goals and the learning strategies



Discussion and Conclusion

The results of this study support the view that both collectivism and individualism affect achievement goal orientations and subsequently affect students' learning strategies. Through the pioneering works of Berry, Poortinga, Segall, & Dasen (1992), with their so-called eco-cultural framework, which stated that all psychological phenomena, including achievement behaviour, are essentially viewed as adaptation to specific cultural and ecological contexts. In addition, according to Lonner and Adamopoulos (1997), the utilization of this framework may facilitate researchers to develop hypotheses on particular interrelationships between culture and behaviour. They further advocated that researcher may take the assumption that cultural variables take the role as antecedent to various kinds of human thought and behaviour, and that culture can play a significant and crucial role in shaping any kind of human behaviour. In particular, cultural value orientations for collectivism and individualism may imply different motivational orientation and may act as antecedents to students' achievement behaviour. Besides, it was argued that the motive structure of collectivists reflect receptivity and adjustment to the needs of others. Triandis (1995) posited that the goals of the collectivists are role relevant, long term and the in-group goals are influential. Close examination of the items used in the collectivism scale for the present study did in fact reflect all these attributes

However, as reported from the finding in the path regression analysis, collectivism had in fact significant effect on the learning goal orientation, but not on performance goal orientation. The present finding therefore supported the assertion made by Hau and Salili (1996) that since collectivism emphasizes on hard work, effort and perseverance, this construct may have significant influence on the learning goal orientations. The result also supported the empirical evidence of previous researches suggesting that Chinese are learning oriented and they usually attribute their performance more to effort than to the ability. On the other hand, for the individualism, they have both positive influences on the learning goal as well as the performance goal. This can be seen from the findings on path regression analysis. There were in fact two paths for the individualism affecting learning strategies, one via the performance goal orientation and the other via the learning goal orientation. Close examination on the items in the subscale of individualism revealed that in the vertical dimension of individualism, the value of "achieving" predominated. Items

like: “Winning is everything”; “Competition is the law of nature”; “When another person does better than I do, I get tense and aroused” reflected such value orientation. This should foster competition and competing with others. As such, this kind of value orientation would foster performance goal orientation, because the learning attitude for the performance-oriented individual reflected meanings and attitudes like: “feeling angry when one do not do well as others”; “Importance for one to always do better than others”. Moreover, in the horizontal dimension of individualism, core value orientation was placed on fulfilling individuals’ internal needs and rights. Such value orientation would in fact correspond to the basic motive structure of the individualists’ internal needs, rights, and capacities (Markus & Kitayama, 1991). In other studies, such as Bond (1988), Yu and Yang (1994) found that individualists displayed the characteristics of individual-oriented achievement motivation. In fact, individual-oriented achievement motivation (IOAM) emphasizes setting goals and standards by one self. As such, IOAM should be closely related to the personal experience of learning new skills and the mastery of challenging tasks (Tao & Hong, 2000). Therefore, with careful thought in this direction, it might be argued that the individualists displayed two kinds of value orientations, one on the vertical dimension, which emphasizes achieving and competition leading to the performance goal orientation; while the second kind in vertical dimension, which emphasizes internal needs, rights and individual-oriented achievement motivation (IOAM), may lead to the learning goal orientation. From the previous discussions, it can be concluded that the path analysis results indicated that collectivism had significant direct influences on the learning goal. However, individualism had significant influence on the learning goal **as well as** the performance goal. On the other hand, learning goal had all significant influences on the rehearsal, elaboration, organization, critical thinking and the metacognitive self-regulation strategies, whereas the performance goal had no significant effects on the five learning strategies.

References

- Berry, J. W., Poortinga, Y. H., Segall, M. H., & Dasen, P. R. (1992). *Cross-cultural psychology: research and applications*. Cambridge, MA: Cambridge University Press.
- Bond, M. H. (1988). Finding universal dimensions of individual variation in multicultural studies of values: The Rokeach and Chinese value surveys. *Journal of Personality and Social Psychology*, 55, 1009-1015.
- Chen, C. S., Stevenson, H. W., Hayward, C., & Burgess, S. (1995). Culture and academic achievement: Ethnic and cross-national differences. In M. L. Maehr, & Pintrich, P. (Eds.) *Advances in motivation and achievement*. (Vol. 9).(pp.119-151). Greenwich, Connecticut: JAI Press Inc.
- Chen, C. & Uttal, D. H. (1988). Cultural values, parents' beliefs, and children's achievement in the United State and China. *Human Development*, 23, 351-158.
- Greene, B. A., & Miller, R.B. (1996). Influences on achievement: Goals, perceived ability, and cognitive engagement. *Contemporary Educational Psychology*, 21, 181-192.
- Hau, K, T., & Salili, F. (1996). Achievement goals and Casual Attributions. In S.Lau (Ed.). *Growing up the Chinese way*.(pp.121-145). Hong Kong: Chinese University Press.
- Kong, C. K., & Hau, K. T. (1995). *Chinese student's learning orientation and approaches to learning*. Paper presented at the Twelve Annual Conference, HKERA, Hong Kong.
- Lonner, W. J., & Adamorpoulos, J. (1997). Culture as antecedent to behavior. In J. W. Berry, Y. H. Poortinga, & J. Panley (Eds), *Handbook of Cross-Cultural Psychology (Vol. 1)*(pp43-83). Needham Heights, MA: Viacom.
- Markus, H. R., & Kitayama, S. (1991). Culture and the self: Implications for cognition, emotion, and motivation. *Psychological Review*, 98, 224-253.
- Nolen, S. B. (1988). Reasons for studying: Motivational orientations and study strategies. *Cognition and Instruction*, 5, 269-287.
- Pintrich, P. R., Smith, D.A.F., Garcia, T., & McKeachie, W.J. (1993). Reliability and predictive validity of the Motivated Strategies for Learning Questionnaire (MSLQ). *Educational and Psychological Measurement*, 53, 801-813.
- Roedel, T., Schraw. G., & Plake, B. S. (1994). Validation of a Measure of Learning and

Performance Goal Orientations. *Educational and Psychological Measurement*, 54, 1013-1021.

Singelis, T. M., Triandis, H. C., Bhawuk, D., & Gelfand, M. J. (1995). Horizontal and vertical dimensions of individualism and collectivism: A theoretical and measurement refinement. *The Journal of Comparative Social Science*, 29, 240-275.

Stevenson, H. W., & Lee, S. (1990). *Context of Achievement, Monographs of the Society for Research in Child Development, Serial no.221, Vol. 55, Nos. 1-2.*

Tao, V., and Hong, Y. Y. (2000). A Meaning System Approach to Chinese Students' Achievement Goals. *Journal of Psychology in Chinese Societies*, 1, 13-38.

Triandis, H. C. (1995). *Individualism & Collectivism*. USA:Westview Press, Inc.

Yu, A. B., & Yang, K. S. (1994). The nature of achievement motivation in collectivist societies. In U.Kim, H.C. Triandis, C. Kagitcibasi, S.C. Choi, & G. Yoon (eds.), *Individualism and Collectivism: Theory, Method, and Applications* (pp. 239-250).London: Sage Publications.