

THE STRUCTURAL MODEL OF PARENTING STYLES AS ANTECEDENT ON LEARNING MOTIVATION AND SELF-REGULATED LEARNING FOR UNDERGRADUATES IN HONG KONG

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Abstract

Present study, was conducted to explore the impact of parenting on self-regulated learning with mediating effect for learning motivation. The sample of the study consisted of 210 students which was conveniently sampled from universities in Hong Kong. Designed Questionnaire was used to collect the data. Confirmatory factor analysis was conducted to evaluate the construct validity of the questionnaires, whereas reliability was indicated by Cronbach's alpha. Path analysis and structural equation modeling was conducted as well to investigate the relationship between parenting styles, learning motivation and self-regulated learning of the samples, and also examine the mediating effect of learning motivation. It is found that parenting styles are significantly associated with learning motivation, while learning motivation are significantly associated with self-regulated learning. There is an indirect effect of parenting styles on students' self-regulated learning through learning motivation. Results of structure equation modeling reveal that the proposed model fit the data well : $\chi^2(168) = 466.90$, $\chi^2/df = 2.78$, RMSEA = .09, CFI = .91, GFI = .83. And permissive and "Guan" parenting showed an obvious impact on learning motivation and in turn affect student's self-regulated learning. Since the study was adopted in Hong Kong only, it may have limitation in generalization of result to Asian Countries, and be less effective for external validation. The main contribution for the present study, however, attempts to confirm the conformation of Hong Kong parenting styles as a cosmopolitan city and its association with learning motivation and self-regulated learning, and such relationship may not have been examined before. It also provides practical implications to Hong Kong parents to fully aware the importance of complex structural relationships among learning strategies among parenting, learning motivation and self-regulated learning, such that children could be implemented to enhance self-regulated learning behaviors and academic performance.

Keywords: Asian and Western parenting styles, learning motivation, self-regulated learning strategy

Introduction

Postnatal self-regulated learning is unique to every individuals according to the meta-cognitive, motivational, and behavioral conceptualization (Zimmerman, 1990), which parenting would be the considerable environmental factors. It is argued that parenting styles is the primary factor of self-regulated learning. The involvement of parents would affect their children's learning strategies directly. In Hong Kong, the appearance of "Hong Kong Child" raised the public concern. It refers to the children who are over dependent to their parents and who cannot take care of themselves, even simple daily actions. The parenting style in Hong Kong is over caring and obedience requiring, and thereby, they may not foster the ability of self-regulation. Worse still, this phenomenon leads to their poor self-regulation, thus, affect self-regulated learning and finally academic performance. Moreover, in Chinese, social orientation and collectivism were emphasized other than individualism as Western. Since Hong Kong is a cosmopolitan city, the format of parenting styles is under investigation. Therefore, this research is to examine the conformation of parenting styles in Hong Kong and its unique influences on learning motivation and self-regulated learning.

This research aims to investigate the relationship between parenting styles, learning motivation and self-regulated learning, as well as establishing a model to show whether environmental factors, Western parenting styles, and Asian parenting styles will influence the self-regulated learning through the mediating effect of learning motivation.

Literature Review

Learning Motivation

Motivation orientation of learning plays an important role on academic performance. It can be divided into two kinds: intrinsic motivation and extrinsic motivation. Self-determination theory is selected to explain intrinsic and extrinsic motivation which is proposed by Deci and Ryan (1985). It stresses the importance on environment interpersonally and how environment affects autonomous and controlled motivation (Turner, Chandler, & Heffer, 2009).

According to Deci and Ryan (1985), Cognitive Evaluation theory (CET), is a sub-theory of self-determination theory, which contributes in explaining the intrinsic motivation side of human behavior. Intrinsic motivation is striving from well-being to competence and self-determining when interacting to environment. Students who have intrinsic motivation on task are more willing to learn, and perception of competence. Intrinsic motivation can be further differentiated into three specific motives.

Intrinsic motivation to know, defined as achieving an activity for the pleasure and satisfaction while learning, exploring, or trying to understand something new (Ryan, & Deci, 2000).

Intrinsic motivation toward accomplishments, defined as engaging in an activity for the pleasure and satisfaction experienced when one try to accomplish or create something (Vallerand, Pelletier, Briere, Senecal, & Callieres, 1992).

Intrinsic motivation to experience stimulation, defined as experiencing stimulating sensations such as sensory pleasure, excitement, intense feeling of cognitive pleasure (Vallerand, Pelletier, Briere,

Senecal, & Callieres, 1992).

For the extrinsic motivation, it is explained by Organismic Integration Theory, which is another sub-theory of self-determination theory, help explain the motives of extrinsic motivation (Deci, & Ryan, 1985). It describes individuals engaging in an activity as means of an end and not for their own interest due to desirable outcomes such as reward, praise, and avoidance from punishment (Vallerand, Pelletier, Briere, Senecal, & Callieres, 1992). It can be further differentiated into three aspects and they are believed to be arranged along self-determination continuum.

External regulation illustrates the behavior is regulated through external means such as rewards and constraints (Ryan, & Deci, 2000).

Introjected regulations refers to the reason of the individual's behavior is internalized, but the internalization is limited with the past external contingencies (Ryan, & Deci, 2000).

Identification describes the behavior is perceived as the choice of oneself with valuing and judging important for oneself (Ryan, & Deci, 2000).

Parenting Styles

Parenting is a process of raising children with fostering, and supporting the physical emotional, social, intellectual development of a child from infancy and adulthood.

Western parenting styles. Maccoby and Martin (1983) proposed two central dimensions of parenting styles. Parental acceptance/ responsiveness represents parents are supportive, sensitive to their children needs, and willing to provide affection and praise to their children while parental demandingness/control refers to the parents who setting rules, expecting their children to follow them, and closely monitor their children's activities to ensure that these rules are followed (Shaffer, 2002). Along with these dimensions, Baumrind's three parenting styles can be characterized.

Authoritarian parenting illustrates high demandingness and low responsiveness of parents. Parent would impose many rules, request strict obedience with punishment such as power assertion, and seldom give out any explanation about the reason of compliance (Shaffer, 2002).

Authoritative parenting illustrates high demandingness and high responsiveness of parents. Parent would make reasonable demand of their children in a control but flexible manner (Shaffer, 2002). They are willing to provide explanation for comply the setting rules and ensure their children follow those guidelines.

Permissive parenting illustrates high acceptance and low demandingness of parents. Parent make few demand and allow their children to freely express their feelings and impulses, seldom closely monitor their children's activities, and control over their behavior. (Shaffer, 2002).

Asian parenting styles. Stewart, Rao, Bond, and Chang (1998) proposed three dimensions of parenting styles which is specifying in describing Asian parenting. They are warmth, control, "Guan" or training (Chao, & Tseng, 2002).

Warm describe the parents are willing to support, and being sensitive to their children

needs, praising their children when they meet their expectation.

Control describe the parents expect high loyal and obedience from their children. In order to ensuring their children compliance, they monitor their children's activities as always.

"Guan" or training describe the parents emphasize self-discipline, organization skill when engaging activities, and close parental involvement (Stewart, Rao, Bond, Chang, Fielding, & Kennard, 1998).

Baumrind (1971) mentioned that there was a positive association between authoritative parenting styles and academic performance, most motivated, most competent, most achievement oriented while authoritarian and permissive parenting styles negatively correlated with academic performance. However, the relations between parenting styles and academic performance in children are not persisting across ethnic groups. For the African American children, high degree of controlling parenting predicted lower grades (Baumrind, 1971), however, high responsiveness of parenting did not contribute to adolescents' grades. Besides, controlling authoritarian parenting styles had typically been found to predict poor academic achievement. However, for the Asian American, children reared with authoritarian parenting styles carried out more superior academic performance.

The difference can be explained by the differing interpretation of "parental control". For Asian, parental control defined as a more organizational type of control that fosters smooth family functioning and harmony (Chao, 1994). It stems from the China's value of loyal being and obeying authorities like figure such as parents and teacher. Children are expected to work hard and do extremely well in academic work or occupation in order to fulfill their parents and gain the reputation for their family ultimately (Chiu, Salili, & Hong, 2001). Therefore, a new dimensions of parenting styles, "Guan" or training, was developed to explain the high controlling parenting styles in Asian.

Self-Regulated Learning

Self-regulated thoughts, feelings, and behaviors are regarded as academic self-regulation, in order to achieve educational goals (Salili, Fu, Tong, and Tabatabai, 2001). The use of self-regulating strategies, such as comprehension monitoring, goal setting, planning, and effort management and persistence, is crucial for academic performance no matter what actual classroom tasks (Pintrich, & De Groot, 1990). Self regulated learners would monitor and aware of their progress due to recognition of greater responsibility of their achievement outcomes with self regulated skills developed from observation, imitation, enriching the cognitive motor skills with self-control, and adaptation of dynamic environment (Chiu, Salili, & Hong, 2001).

Parenting Styles and Learning Motivation.

According to the Ginsburg, & Bronstein's study (1993), it was found that extrinsic motivational adaptation and poorer academic performance are found to be related to characteristics of Authoritarian parenting styles such as higher homework supervision and negative parental perception to grades. Intrinsic motivation and better academic performance related to positive families supporting the autonomous behavior whereas high responsiveness and acceptance characterizes the authoritative parenting styles.

Self-Regulated Learning and Learning Motivation.

Along with the Pintrich, & De Groot's (1990) study, SDT suggested that students who interested and felt important in their schoolwork are more likely to cultivate intrinsic motivation. The relations between self-regulated learning and learning motivation were mostly explained by general expectancy-value model. Accordingly, the motivation could be divided into three parts: expectancy component, value component, and affective component. For the expectancy component, students form an expectation about their ability and outcomes (Pintrich, & De Groot, 1990). For the value component, it refers to the student's goal and interest of the task. They may develop learning goal or performance goal. It is believed that the students who develop learning goal involved learning can get deeper knowledge, a sense of competence and understanding of the subject matter (Chiu, Salili, & Hong, 2001). For the affective component, it illustrates the emotion reactions towards the task (Pintrich, & De Groot, 1990).

Parenting Styles and Self-Regulated Learning.

Parenting styles would influence the self-regulated learning with autonomy support.

For the autonomy support, independent problem solving, choice, and participation in decisions are encouraged rather than externally dictate outcomes, and motivation achievement through punitive disciplinary techniques, pressure, or controlling rewards (Grolnick, & Ryan, 1989). Self-regulation and independence should be stemmed from parental autonomy support for school success. It raises the sense of perceived competence and self-esteem for school tasks (Grolnick, & Ryan, 1989). It further increased the likelihood of using self-regulated strategies in learning.

Research Hypotheses

Referring to the literature review, three hypotheses are formed in order to show the expectations about the results of the research.

1. There exist significant relationships of Western parenting styles with student's learning motivation, and subsequent to their self-regulation learning strategies at $p = .05$.
2. There exist significant relationships of Asian parenting styles (warmth, control, Guan) with student's learning motivation, and subsequent to their self-regulation learning strategies at $p = .05$.
3. A desirable structural model consisting of parenting styles, learning motivation and self-regulated learning strategies can be formulated and validated.

Method

Participants and Sampling Method

Two hundred and ten students (99 women, 111 men) studying in tertiary institution in Hong Kong aging from 18 to 25 were invited to participate in this research. Taking a random sample from universities, convenience sampling was used to select the sample students. The questionnaires were distributed separately. Consent form would be given to the participants by the experimenter first and followed by questionnaires. The questionnaires will be finished with following the instructions after the consent form is signed. A rating scale question sheet would be given to each participant. Three aspects of the rating scale question sheet were included: Parenting styles, Learning motivation and

Self-Regulated learning.

Debriefing session about briefly explaining the purpose of research due to the ethical issues would be given after the collecting the questionnaires.

Academic Motivation Scale (AMS).

AMS is proposed by Vallerand, Pelletier, Blais, Brière, Senécal, and Vallières in 1993. It got a satisfactory validity whereas, NFI=.94, AGFI=.91, and GFI=.94 while its reliability values varied from .83 to .86, except for the identification subscale which had an alpha value of .62 that equivalent to the result obtained from the original EME scale. High internal consistency was found. It is composed of 24 items with 7 point likert scale, anchored by the end point (1 = *strongly disagree* to 7 = *strongly agree*, while 4 = *moderately agree*), may signify the reasons why student go to university, subdivided into six subscales assessing three types of intrinsic motivation (intrinsic motivation to know, toward accomplishment, and to experience stimulation), and three types of extrinsic motivation (external regulation, introjected, and identified).

Short Version of Parent Authority Questionnaire (PAQ)

The original PAQ, is invented by Buri, was modified into a short version of PAQ by Alkharusi, Aldhafri, Kazem, Alzubiadi, and Al-Bahrani in 2011. It is used to measure Western parenting styles in this research. It is composed of 20 items subdivided into 3 subscales: Authoritative (7 items), Authoritarian (7 items), Permissive (6 items). It was designed to be 30-items with 4 point likert scale ranging from 1 = *strongly disagree* to 4 = *strongly agree*. It got satisfied convergent validity value, CI=.04-.05, RMSEA=.04, CFI=.93, and NNFI=.92 while high internal consistencies were also attained for each factor which varies from .65 to .73.

Parenting Inventory

Parenting inventory is proposed by Stewart, Rao, Bond and McBride-Chang, Fielding, and Kennard in 1998. It composed of 22- items regarding parenting styles. Students were asked to indicate their degree of agreement of the items on a 6-point Likert scale (1 = *not at all true of me* to 7 = *very true of me*) with their perception of parents. Its reliability value varies from .73 to .83 of warmth and control items while .67 to .77 of "Guan", both indicates a moderate internal consistency.

Academic Self-Regulated Learning Scale (A-SRI-S)

A-SRI-S was invented by Magno in 2010 to measure self-regulation. It is composed of 54 items subdivided into seven subscales assessing seven factors of self-regulated learning: memory strategy (14 items), goal-setting (5 items), self-evaluation (12 items), seeking assistance (8 items), environmental structuring (5 items), learning responsibility (5 items), and planning and organizing (5 items). It indicates the tendency of students in learning with rating the statement on 4 point likert scale anchored by the end point (1 = *strongly disagree* to 4 = *strongly agree*). It got satisfactory convergent validity value, RMS=.07, RMSEA=.06, GFI=.91, and NFI=.89 while high internal consistencies were also attained for each factor which varies from .73 to .87.

Results

Descriptive Statistics and Correlation Analysis

The mean, standard deviations and correlations of Western and Asian parenting styles, learning motivation as well as self-regulated learning from four questionnaires are indicated in Table 1.

Table 1
Descriptive Statistics and Correlation between Different Variables (N=210)

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1. Authoritative	--																			
2. Authoritarian	.07	--																		
3. Permissive	.25**	-.21**	--																	
4. Warmth	.60**	.13	.36**	--																
5. Control	-.14*	-.54**	.30**	-.23**	--															
6. Guan	.24**	-.25**	.95**	.36**	.33**	--														
7. IM-to-know	.15*	-.08	.41**	.32**	.12	.46**	--													
8. IM-to-accomplish	.13	-.14*	.46**	.28**	.17*	.50**	.80**	--												
9. IM-to-experience	.15*	-.08	.39**	.25**	.10	.42**	.80**	.72**	--											
10. EM-identified	.13	-.04	.42**	.19**	.17*	.45**	.60**	.67**	.53**	--										
11. Em-introjected	.20**	-.19**	.49**	.25**	.30**	.55**	.58**	.73**	.53**	.62**	--									
12. EM-external regulation	.12	-.05	.31**	.16*	.14*	.37**	.29**	.38**	.18*	.54**	.45**	--								
13. Amotivation	-.07	-.13	-.19**	-.15**	.11	-.19**	-.39**	-.34**	-.34**	-.33**	-.13	-.03	--							
14. Memory	.17*	-.12	.19**	.28**	.07	.21**	.24**	.22**	.27**	.24**	.30**	.08	-.03	--						
15. Goal Setting	.17*	-.15*	.11	.18**	.07	.13	.19**	.22**	.16*	.24**	.25**	.17*	-.06	.35**	--					
16. Self-evaluation	.10*	-.17*	.26**	.21**	.16*	.31**	.37**	.42**	.37**	.39**	.39**	.19**	-.15*	.48**	.46**	--				
17. Seeking Assistance	.07	-.11	.24**	.20**	.06	.30**	.38**	.36**	.40**	.35**	.32**	.20**	-.20**	.40**	.16*	.55**	--			
18. Environment	-.01	.06	.12	.13	-.05	.13	.21**	.28**	.18**	.31**	.27**	.24**	-.14	.16*	.30**	.15*	.30**	--		
19. Responsibility	.09	-.06	.13	.14*	.10	.16*	.24**	.27**	.22**	.19**	.32**	.13	-.02	.19**	.46**	.38**	.29**	.32**	--	
20. Organizing	.16*	-.19**	.28**	.26**	.20**	.33**	.37**	.37**	.34**	.38**	.36**	.19**	-.13	.44**	.38**	.52**	.52**	.33**	.31**	--
<i>M</i>	21.93	19.33	27.00	25.84	29.53	37.33	20.41	20.34	19.55	20.74	19.27	20.97	13.29	33.76	13.05	29.65	24.01	11.81	14.07	17.34
<i>SD</i>	4.46	4.58	5.48	6.14	7.18	6.70	4.09	3.87	3.91	4.10	3.92	4.23	5.88	5.98	3.25	4.50	3.30	2.60	2.56	2.74

* $p < .05$, ** $p < .01$

Reliability Analysis

During pilot study, sample of one hundred and two students was selected (41 female, 61 male) from one private university in Hong Kong with the use of convenience sampling. Scores on each item was summed up to give the respondent's overall attitude score. Carrying out an item analysis, the items with lower reliabilities ($r \leq .06$) were omitted. Hence, 1 item out of original 20 items from Parental Authority Questionnaires, 4 items out of original 22 items of Parenting Inventory, and 2 items out of original 54 items of Academic Self-Regulated Learning Scale (A-SRI-S) were discarded due to unsatisfactory reliability.

The reliabilities of the scales used in the study were shown in Table 3. For parenting, the internal consistencies of Parental Authority Questionnaire was .74 in which the internal consistencies of its three subscales were satisfactory, ranging from .67-.82. The internal consistencies of Parenting Inventory were .73, and the internal consistencies of its three subscales were satisfactory as well, ranging from .67-.79. For learning motivation, the internal consistencies of seven subscales were satisfactory to good, ranging from .73 to .87 while the internal consistencies of Academic Motivation Scales were .87. For self-regulated learning, the internal consistencies of seven subscales were satisfactory to good, ranging from .61 to .81 while the internal consistencies of Academic Self-Regulated Learning Scale were .88.

Table 2

Reliability Cronbach's Alphas for Short Version Of Parental Authority Questionnaire (PAQ), Parenting Inventory, Self-Efficacy Scale, Academic Motivation Scale (AMS), Academic Self-Regulated Learning Scale (A-SRI-S)

Scales	Cronbach's Alpha
Parental Authority Questionnaire	.74
Authoritative (“Once family policy had been established, my father/mother discussed the reasoning behind the policy with the children.”)	.78
Authoritarian (“Whenever my father/mother told me to do something as I was growing up, he/she expected me to do it immediately without asking any questions.”)	.82
Permissive (“My father/mother did not view herself as responsible for directing and guiding my behavior.”)	.67
Parenting Inventory	.73
Warmth (“My parent enjoys spending time with me.”)	.79
Control (“My parent is restrictive/ controlling of me.”)	.76
Guan (“My parent emphasized the importance of hard work.”)	.67
Academic Motivation Scale	.87
Intrinsic motivation-to-know (“Because I experience pleasure and satisfaction while learning new things.”)	.83
Intrinsic motivation-to-accomplish (“For the pleasure I experience while surpassing myself in my studies.”)	.81
Intrinsic motivation-to-experience stimuli (“For the pleasure that I experience when I read interesting authors.”)	.75
Extrinsic motivation-identified (“Because eventually it will enable me to enter the job market in a field that I like.”)	.79
Extrinsic motivation-introjected (“To prove to myself that I am capable of completing my college degree.”)	.73
Extrinsic motivation-external regulation (“Because with only a high-school degree I would not find a high-paying job later on.”)	.74
Amotivation (“Honestly, I don't know; I really feel that I am wasting my time in school.”)	.87

Academic Self-Regulated Learning Scale	.88
Memory (“I recite my notes while studying for an exam.”)	.61
Goal Setting (“I plan the things I have to do in a week.”)	.81
Self-Evaluate (“I am open to feedbacks to improve my work. “)	.77
Seeking Assistance (“I study with a partner to compare notes. “)	.71
Environment Restructuring (“I isolate myself from unnecessary noisy places.”)	.73
Responsibility (“I do things as soon as the teacher gives the task.”)	.68
Organizing (“I study at my own pace. “)	.67

Confirmatory Factor Analysis

Harmonized model could achieve from confirmatory factor analysis by filtering the items. For the scale of parenting, the chi square value and fit indices of Parental Authority Questionnaires and Parenting inventory: $\chi^2(137) = 379.96$, RMSEA = .08, CFI = .90, GFI = .86. All factor loadings were significant, and the average factor loading was .64. For the learning motivation, the chi square value and fit indices is $\chi^2(329) = 828.54$, RMSEA = .08, CFI = .95, GFI = .79 respectively. All factor loadings were significant, and the average factor loading was .70. For self-regulated learning, the chi square value and fit indices of data: $\chi^2(443) = 832.00$, RMSEA = .07, CFI = .93, GFI = .79. All factor loadings were significant, and the average factor loading was .62.

Path Analysis of the Observed Variables

A path model between parenting, learning motivation and self-regulated learning have been examined and was shown in Figure 1.

In the Figure 1, the result revealed that permissive, Western parenting styles, was a significant positive predictor of learning motivation of IM-to-know ($\beta = .29, p < .01$), IM-toward-accomplishment ($\beta = .37, p < .01$), IM-to-experience ($\beta = .31, p < .01$), EM-identified ($\beta = .32, p < .01$), EM-introjected ($\beta = .30, p < .01$), EM-external regulation ($\beta = .24, p < .05$), and negative predictor of amotivation ($\beta = -.23, p < .05$). There was no significant relationship between authoritative, authoritarian and any indicators of learning motivation (IM-to-know, IM-toward-accomplishment, IM-to-experience, EM-identified, EM-introjected, EM-external regulation and amotivation). Besides, the result indicated that Guan, Asian parenting styles, was another significant positive predictor of learning motivation of IM-to-know ($\beta = .16, p < .05$), IM-toward- accomplishment ($\beta = .17, p < .05$), IM-to-experience ($\beta = .17, p < .05$), EM-identified ($\beta = .18, p < .05$), EM-introjected ($\beta = .22, p < .05$), whereas, warmth is positively related to IM-to-know intrinsic-to-know significantly ($\beta = .15, p < .05$); control is positively related to amotivation significantly ($\beta = .15, p < .05$).

Furthermore, the result showed that IM-to-know of learning motivation is positively related to organizing ($\beta = .16, p < .05$). IM-toward accomplishment is a negative predictor of memory ($\beta = -.19, p < .01$) but a positive predictor of self-evaluation ($\beta = .16, p < .05$), and learning responsibility ($\beta = .16, p < .05$). IM-to-experience stimulation is positively significantly related to memory ($\beta = .17, p < .05$) and environmental structuring ($\beta = .25, p < .01$) significantly. EM-identified is a positive significant predictor of memory ($\beta = .15, p < .05$), goal setting ($\beta = .15, p < .05$), self-evaluation ($\beta = .23, p < .05$), environmental structuring ($\beta = .17, p < .05$), learning responsibility ($\beta = .17, p < .05$), and organizing ($\beta = .25, p < .01$). EM-introjected is positively related to memory ($\beta = .25, p < .01$), and seeking assistance ($\beta = .23, p < .05$) significantly. There is no significant relationship between EM-external regulation, Amotivation and any indicators of self-regulated learning (memory, goal setting, self-evaluation, seeking assistance, environmental structuring, learning responsibility, and organizing).

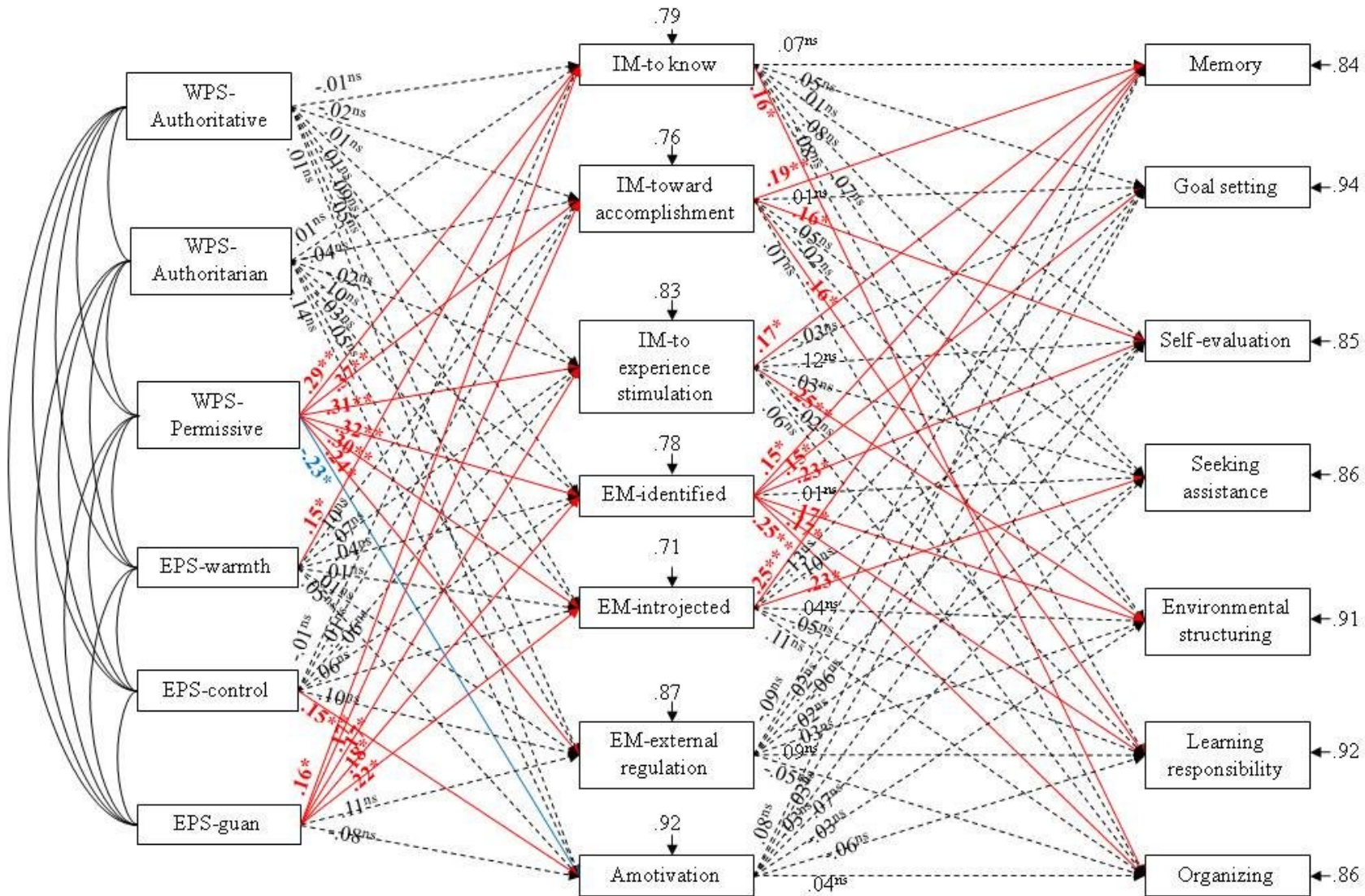


Figure 1. The relationship between parenting style and self-regulated learning with mediating learning motivation. Notes: Coefficients with * refers to significant level of $p < .05$, ** refers to significant level of $p < .01$, *** refers to significant level of $p < .001$, positive significant β values are presented with red lines, negative β values are presented with blue lines while insignificant β values are presented with dotted lines, t refers to t value and n.s. refers to β values which is not significant.

Structural Equation Modeling

Structural equation modeling was also conducted to examine the model of parenting, learning motivation and self-regulated learning. Results revealed the model fit the data: $\chi^2(168) = 466.90$, $\chi^2/df = 2.78$, RMSEA = .09, CFI = .91, GFI = .83. The structural model was shown in Figure 2.

Direct effects. In the structural equation model, parenting was positively associated with learning motivation ($\beta = .61, p < .001$) significantly, with its all significant positive indicators: authoritative ($\beta = .28, p < .01$), permissive ($\beta = .76, p < .001$), warmth ($\beta = .39, p < .01$), control ($\beta = .37, p < .01$), and Guan ($\beta = .80, p < .001$), excepting authoritarian which is a significant negative predictor ($\beta = -.30, p < .01$). Since the coefficients related to Guan parenting styles were greater than the other parenting styles, it implied that Guan would be the strongest indicators of parenting in the model on self-regulated learning. Besides, the finding revealed that learning motivation was positively associated with self-regulated learning ($\beta = .61, p < .001$) significantly. In learning motivation, IM-toward accomplishment would be the strongest indicator among all motivation with $\beta = .92, p < .001$ while amotivation would be the negative indicator of learning motivation ($\beta = -.37, p < .01$). In self-regulated learning, all indicators are positively associated with self-regulated learning: memory ($\beta = .72, p < .001$), goal setting ($\beta = .58, p < .01$), self-evaluation ($\beta = .52, p < .01$), seeking assistance ($\beta = .38, p < .01$), environmental structuring ($\beta = .75, p < .001$), learning responsibility ($\beta = .66, p < .01$), and organizing ($\beta = .48, p < .01$).

Indirect effects. Structural equation model's analysis revealed that there was an indirect effect with parenting and self-regulated learning strategies ($\beta = .37, p < .01$) with learning motivation acting the mediating role.

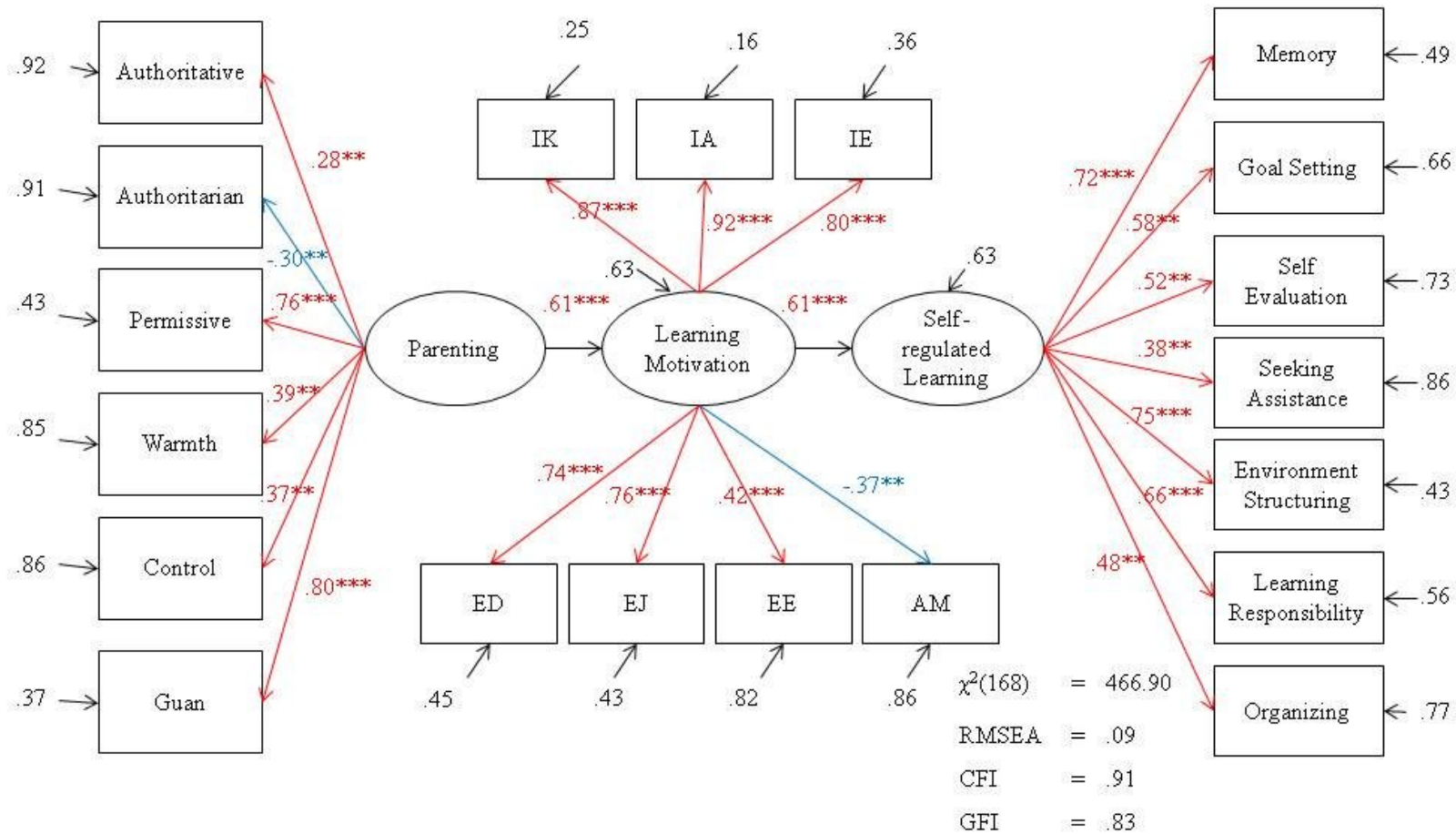


Figure 2. The structural equation model of the relationship between parenting , learning motivation , and self-regulated learning. Note: K=Intrinsic-to-know; IA=Intrinsic-toward -accomplish; IE=Intrinsic-to-experience stimulation; ED=extrinsic-identified; EJ=extrinsic- introjected; EE=extrinsic-external regulation; AM=Amotivation; RMSEA=Root Mean Square of Approximation; GFI = Goodness of Fit Index; CFI = Comparative Fit Index. Coefficients with * refers to significant level of $p < .05$, ** refers to significant level of $p < .01$, *** refers to significant level of $p < .001$, positive significant β values are presented with red lines, while negative β values are presented with blue lines, t refers to t -value and n.s. refers to β values which is not significant.

Discussion

Main Findings and their Implications

The present study extended the literature by relating learning motivation to parenting styles and self-regulated learning.

Consistent with the proposed model, it was found that parenting styles should not be separated into two latent variables, Western and Eastern, combining two constructs instead. It implies that parenting were influenced by culture values, whereas, Western and Eastern were the elements included rather than forming two distinct raising styles under different countries. Considering the whole structural equation model, parenting was indirectly associated with self-regulated learning through mediation of learning motivation.

Mediation Effect of Learning Motivation between Parenting and Self-Regulated Learning

Relationship between parenting styles and learning motivation. Along with the structural equation model in Figure 2., it was found that parenting was positively significantly associated with learning motivation. It implies that parenting would not only be an primary factor of well-being development, such as, academic performance, personality, social networks, but also the motivation in learning (Baumrind, 1991).

In Chinese, filial piety is integrated into ethical value to the culture (Ho, 1996). It affects the attitude, behaviors and beliefs of Chinese. According to Yang and Yeh (1995), filial piety involved love and respect for parents and obedience towards parents. Under this universal value, especially in Chinese, children are raised with the concept of being respectful and obedience, while, absent of these characters would be considered to be failure in being a successful ‘good’ child (Sun, 2008). Consequently, most children would have a high tendency on following parents, while, working on schedule set by parents. On the other hand, combining with the unconditional attitude from the children, the instruction from parents could be effective and influencing. With high degree of obedience and responsiveness from children, parenting style adopted inside family could be determined on the development of a child. Considering that the primary orientation of a child is the study in school, parenting style could be critical to the development in learning.

According to the structural equation model, permissive and “Guan” were the outstanding indicators of parenting among all the parenting styles in Hong Kong. Permissive parenting is a lax pattern (Shaffer, 2002), parents would illustrates high acceptance and low demandingness (Baumrinds, 1971). Whereas “Guan” elaborates the self-discipline, organization skills and close parental involvement inside family practices (Stewart, Rao, Bond, Chang, Fielding, & Kennard, 1998).

Additionally, the values changed with the transformation of the society. Throughout the century, the society structure had been transformed from industrial-base to financial or economic-base, while, more knowledge-emphasized. In the past, parents might believe that it was not a must of being university students. Children could still be a bread winner without having a certification of bachelor degree. On learning and education, the parents raised in this environment or concept may process

permissive attitude on their children. Those parents would not emphasize the achievement of high education level by offering numerous training courses and programs, at the meanwhile, they allow the children to choose, experience and develop the specialty. As the result, these children have high tendency on processing intrinsic motivation. However, this values changes vigorously in recent years, and even altering the styles of raising the child. Nowadays, with the increasing offers of universities in Hong Kong, increasing numbers of graduated university students were found. On the other hand, the famous and favorable career in Hong Kong, including profession like doctor and lawyer and officer in financial organization, undergraduate tends to be the basic requirement to step in these kinds of career. Parents would believe that having a certification of bachelor degree is the basic requirement of being success in future in order to compete with others. It is more obvious in Asian countries rather than Western countries, especially Hong Kong. Parents would have a higher expectation and demandingness than before. Unsurprisingly, parents under this value are likely to have a long-sight plan for their children. Arrangement such as both developmental and knowledge enhancement course would all apply on the children without asking for the willingness. Hence, under the influence of Eastern values, Guan parenting styles was a stronger predictor in Hong Kong.

Nevertheless, most parents are holding these two different values together. Their raising styles are depending on value that they emphasize. It means that both permissive and Guan parenting style could be the most significant predictor on learning motivation in Hong Kong.

Moreover, the findings showed that authoritative parenting was negatively associated with learning motivation although parents with authoritative showing high demandingness and requesting strict obedience from their children (Shaffer, 2002). It confirms the previous findings of Chao (2002). In his study, he found that children would carry our superior academic performance even if rearing up with authoritarian parenting styles in Asian American, but not in Western America. It is believed there was a differing interpretation of “parental control”. In Asia, “Parental control” is orientated to cultivate harmonic and stable family environment with control in enhanced organization (Chao, & Tseng, 2002). To consider with, Chinese value such as authorities obeying and emphasizing loyalty could explain the tendency on receiving instructions from significant others. For instance, a good child is expected to perform positive attitude towards mission such as studying, favorable result on academy, earn reputation for parents and absolutely obeying in traditional Chinese family (Chiu, Salili, & Hong, 2001). As the result, to consider parental authority, Asian teenagers show high acceptance and “Guan” or training would be the positive predictor of parenting while authoritarian was a negative predictor of parenting in Hong Kong.

Concerning the permissive parenting styles, with using path analysis, it was positively related to all motivation in learning either intrinsic motivation or extrinsic motivation except amotivation. Students are likely to be influenced by Chinese value if parents offered great autonomy on their learning. To study with, Confucianism in traditional Chinese society structure emphasized the importance of learning or educating. Inside the internalized practice, every newborn Chinese has the desire on achieving high education standard (Sun, 2012), while, this value and desire would nurture

intrinsic motivation. On the other hand, to achieve a moralist through education has become the ultimate goal of every Chinese, consequently, autonomy has also directed to receive education with no external force from significant others or society.

Besides, Guan was positively related to IM-to know, EM-identified, and EM-introjected significantly. Academic result and achievement are emphasized throughout junior school to university, on the other hand, supervising the progress on learning has become one of the responsibility of parents. Students put the motivation on fulfilling the external expectation of the significant others (Yang, & Yu, 1988), to consider with, the value of collectivism from Confucianism, has placed an influencing role on learning style of students (Salili, Chiu, & Lai, 2001). Hence, extrinsic motivation was cultivated with internalized, identified parent's value or standard.

Relationships between learning motivation and self-regulated learning. Regarding to the structural equation model in Figure 2, it was found that learning motivation was positively significantly associated with self-regulated learning ($\beta = .61, p < .001$). It confirms the proposed model. The relations could be explained by self-determination theory and general expectancy-value model respectively (Pintrich, & De Groot, 1990).

First, concerning self-determination theory (Pintrich, & De Groot's, 1990), interpersonal environment has been elaborated with the significance on affecting autonomous and motivation (Turner, Chandler, and Heffera, 2009). To deal with the requirement from the environment, strength, limitation, choices and ways must undergo determination and acceptance with considering the inherent psychological needs of competence, autonomy and relatedness (Ryan, & Deci, 2000). It suggested that students would engage in learning cognitively if intrinsic motivation was cultivated. They would try to figure out the meaning of the materials by their own wills when they are interested in their schoolwork. Students, therefore, are likely to carry out self-regulated learning strategies, such as, rehearsal, elaborating and organizational cognitive strategies. Therefore, regarding to the structural equation model, shown in figure 2, IM-toward accomplishment, to accomplish or create through managing activity for the experienced fulfillment and pride (Vallerand, Pelletier, Briere, Senecal, & Callieres, 1992), was found positively associated with memorizing self-regulated learning strategies significantly. Moreover, intrinsic motivation to experience stimulation, define as experience of arousing perception from excitement and cognitive stimulation (Vallerand, Pelletier, Briere, Senecal, & Callieres, 1992), was found positively associated with memorizing self-regulated learning strategies significantly. Surprisingly, extrinsic motivation was also related to memorizing self-regulated learning strategies significantly, EM-identified, treated as providing choice to oneself from elaborating and evaluating the self importance inside a behavior (Ryan, & Deci, 2000), and EM-introjected, the reason of the individual's behavior is internalized with past external contingencies. Rehearsing learning strategy was behavioral processes of knowledge acquisition (Zimmerman, 2008). It works as the means of the end.

Secondly, concerning general expectancy-value model, learning motivation consists of expectancy component, value component, and affective component.

For expectancy component is believed that students would have an expectation on their ability or performance (Pintrich, & De Groot, 1990), especially students with IM-toward accomplishment, and EM-identified. Once they feel pleasure and important on accomplishment, they tend to use self-evaluation, one of the self-regulated learning, worked as a feedback system. At the beginning, students would ask if the discrepancy exists between their ideal performance and their actual performance with using self-evaluation. Once they had realized the presence of discrepancy, they are motivated to learn and strive to their ideal performance with using others self-regulated learning strategies correspondingly, for example, setting some sub-goals to achieve. According to the result, student with EM-identified and EM-introjected are likely setting goals in their learning as to attain success in an effective way. For the sake of achieving the learning task, students were expected to develop learning goal or performance goal. Students are likely to develop learning goal if they are interested on the learning task, which can get deeper understanding of the subject, and a sense of competence (Chiu, Salili, & Hong, 2001). It was the second components, value component. It further fosters the student's interest and intrinsic motivation. Learning motivation and self-regulated learning, therefore, are mutually influencing. Seeking some professional advices is also obvious in students with EM-introjected, would be motivated to learn due to internalizing their parents values on learning as their reason of learning behavior, hence they would like to seek assistance from their parents or any authorities to confirm their patterns of self-regulated learning.

For the affective component, it is convinced that emotion would be a primary factor affecting our reactions towards the task (Pintrich, & De Groot, 1990). Students would be engaged in more task-oriented learning, and external evaluation is diminished (Chiu, Salili, & Hong, 2001).

With a sense of competence, higher learning responsibility was related to IM-toward accomplishment and EM-identified significantly. Students with IM-toward accomplishment, enjoyed the pleasure they obtained in accomplishment, would take higher responsibility in their learning (Ryan, & Deci, 2000). On the other hand, students with EM-identified, recognize learning is an important process in their life, would believe that study is one of the responsibility of students (Ryan, & Deci, 2000). Hence, the results showed that EM-identified was positively related to environmental structuring significantly.

For the environmental structuring strategies, students with EM-identified tend to fully concentrate on their school work due to high responsibility. Also, students who are IM-to-experience stimulated feel pleasure during the progress of study (Ryan, & Deci, 2000). They are not easy to be bothered. They, hence, would structure the environment before starting study to ensure no disturbing in the progress.

Besides, the result also showed that organizing learning strategies, cognitively strategies, was positively predicted by EM-identified significantly which is different to the previous findings. It could be explained by Eastern value. Students identified the importance of learning from their parents which internalize as their own value (Ryan, & Deci, 2000). It motivated them to use more cognitive strategies to have deeper understanding and easier to rehearse.

Conclusion

The main theoretical contribution for the present study is its ability to confirm and establish a structural model comprising Hong Kong (a cosmopolitan city) parenting styles, learning motivation and self-regulated learning, and such relationship may not have been examined before. Regarding to the transformation of society, it is found that permissive and Guan parenting was the strongest indicators among the parenting styles either Western or Eastern in Hong Kong. It implies that parenting styles might be extended.

It also provides practical implications to not only parents, but also educators and other authority figures, to fully aware the importance of parenting education, and its significant impact on student's learning motivation and self-regulated learning strategies, such that suitable programs could be implemented and launched to enhance student's self-regulated learning behaviors as well as their academic performance.

Apart from this, there are some limitations with unstable reliabilities. Since the study has adopted cross-sectional design, it may have limited generalization of result. Although, Hong Kong is a part of Asia, the obtained findings could only represent the relationship between parenting, learning motivation and self-regulated learning of Hong Kong, hence, could not generalized to other Asian countries. Parenting of Asian had not been conformed still. Future studies may explore the conformation of parenting styles with a large population across the ethnic groups, or having a longitudinal study of the causal relationship between parenting, learning motivation and self-regulated learning, hence, to figure out the contradictory results between Asian and Western studies.

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