THE EFFECTIVENESS of CULTURALLY APPROPRIATE COOPERATIVE LEARNING among ASIAN STUDENTS

Nguyen Phuong-Mai [1] **,Cees Terlouw** [2] **and Albert Pilot** [1]

[1] IVLOS, Institute of Education
Universiteit Utrecht,
Heidelberglaan 8
3584 CS Utrecht

[2] ELAN
University Twente
Postbus 217
7500 AE Enschede

Corresponding address:
Nguyen Phuong-Mai
205 Bevinlaan
3527 ED, Utrecht
m.p.nguyen@ivlos.uu.nl

THE EFFECTIVENESS OF CULTURALLY APPROPRIATE COOPERATIVE LEARNING AMONG ASIAN STUDENTS

Nguyen Phuong-Mai, Cees Terlouw and Albert Pilot

Abstract: Many recent intercultural studies proved that people cooperate with each other differently across cultures. We argue that Cooperative Learning (CL) as an educational method born in the West with fundamentally psychological assumptions based on Western values should be adjusted to be culturally appropriate in any non-Western cultures that it is meant to apply. This paper presents research outcome of a series experiments conducted in Vietnamese secondary schools. The control group was given lessons designed according to Western based CL. The experimental group was given lessons designed according to culturally adjusted CL. The later form of CL is argued to be more culturally appropriate in Confucian Heritage Cultures (CHC) to which Vietnam and also China, Japan, Korea, Taiwan, Hong Kong, Singapore and Malaysia belong. The analysis shows that experimental group has higher learning outcome, higher self-esteem, exert higher level of effort and group socialization. We conclude that this result is explained by the application of a CL method that is at the same time a culturally appropriate pedagogy.

Keywords: Cooperation; Cooperative Learning (CL); Asian Confucian Heritage Cultures (Asian or Asian-CHC).

1. Introduction

In many non-Western (developing) nations, together with the wave of importing modern technologies, the current trend of importing educational policies, theories and practices from the West has resulted in the neglect of one's cultural heritage. This has been the consequence of a drive to modernize educational systems. By doing this, governments hope that more up to-date teaching and learning methods will give them a competitive edge and eventually lead to greater economic success and more political control (Thomas, 1997). The enthusiastic application of 'constructivism', 'student-centred learning' and 'autonomy learning', to name a few, in Asia illustrates this trend. There appears a naïve belief among many policy makers and practitioners that policies and practices designed in one context can be unproblematically transported elsewhere. Researchers argue that adopting policies across cultures without recognizing their distinctive historical and cultural dimensions risks 'false universalism' (Witty, Power, & Halpin, 1998).

With regards to the case of Cooperative Learning (CL), while numerous studies show the benefits of CL, the overwhelming support for this method mostly comes from the Western world. Despite the dearth of research on CL, this method is widely recognized in non-Western countries as a 'must' in every education reform propaganda. To the surprise of many who advocate for CL and to the disappointment of many others who have high expectation for CL, in education environment other than the West, this method does not always deliver consistent finding and more often than not, presents controversial issues. Recently, a study of Messier (2003) reported an unpleasant result that may upset and confuse many Asian educational leaders. With 145 Chinese middle school students involved in the study, the results showed that the participants in the *traditional lecture-based learning* obtained higher achievement scores than the participants in the *cooperative learning*. In Macau, training of teachers in the use of CL is presently viewed experimental and not accepted by many educational leaders when comparing it to traditional-based learning. The author concluded that there are fundamental differences between West- East in how students and teachers perceive the learning, interpersonal relationship among teachers, students, families and community…etc. It is argued that the choice to integrate Western cooperative learning into an Eastern educational program has it problems. A more recent comparison study of Phuong-mai, Terlouw and Pilot

(2006) revealed a complex web of cultural conflicts and mismatches that are likely to happen when the Western CL methodology is applied in another context without rigorous adaptation to improve compatibility with the host culture. In short, CL is not a global norm and it should be seen within a context of a specific culture. Some cultures would resist CL in the face of all supportive evidence if the application method is incongruent with the norms and values of the host culture where it is implemented.

2.   Theoretical framework

In this study, culture is where we started. We first conducted an extensive literature analysis to reveal how culture differences can affect cooperation and eventually CL in educational context. Based on the consideration, we specify a cultural contingency perspective and make hypotheses accordingly. The final purpose of our study is to provide a range of principles that may enable teachers and curriculum designers to create CL lessons which is more culturally appropriate to Asian-CHC learners. The research question is: *What are the instructional design principles for CL that are culturally appropriate to apply in Vietnam as one of Confucian Heritage Cultures?*

According to Hofstede (2003), culture differs along five distinct dimensions: power distance; individualism-collectivism; masculinity- femininity; uncertainty avoidance; short-long term orientation. Cultural values along these five dimensions can significantly affect cooperation through the mediation of certain cooperation mechanisms. Over several decades accumulated research has identified a great number of these mechanisms which include the following:

1. Leadership (e.g. Jackofsky et al., 1988; Ronen & Shenkar, 1985; Smith & Peterson, 1988; Triandis, 1993).
2. Facework (e.g. Hofstede, 2003; Leung, 1997; Ting-Toomey, 1988).
3. Reward structure (e.g. Earley & Erez, 1993; Komorita, Chan & Parks, 1993).
4. Group identity (e.g. Aram, 1993; Dawes, Orbell, & van de Kragt, 1988).
5. Trust (e.g. Kramer & Tyler, 1996; Smith et al., 1995).

These proposed mechanisms belong to the first two dimensions in Hofstede's typology. Leadership is an attribute on power distance dimension and other mechanisms are attributes on individualism-collectivism dimension. Both dimensions are well-established cultural constructs. In this study, we follow Hofstede's conception of power distance as the extent to which the less powerful members of institutions expect and accept that power is distributed unequally, and we follow the broad conception of individualism-collectivism as a cultural syndrome that is multifaceted and represents a pattern of shared attitudes, values and beliefs around a particular theme (Hui, 1988; Triandis, 1996).

With each of the mechanism, we first use prior studies to delineate how culture differences can shape the primary motives of cultural members, which, in turn, affect the effectiveness of various cooperation mechanism. We then reflect this on educational context where cooperation is manifested in form of CL. Based on the consideration, we specify a cultural contingency perspective and make hypotheses accordingly. Following that, treatments are described and result is reported. Finally, we discuss the findings and propose concrete instructional design principles to apply CL for Asian-CHC learners.

2.1 Leadership

Societal stability, according to Confucius, is based on *unequal relationships,* between people—in the educational realm this is the teacher–student dyad and the leadership among students.

With regards to the teacher-student dyad, while the interaction between students and teachers in small power distance cultures is likely to enhance as the value of equality is present, the interaction between students and teachers in Asia-CHC is not lubricated with the democratic

oil of equality, warmth and first names, but with the oil of respect, which is a more effective lubricant in a hierarchical collectivist culture (Biggs, 1998). When facing idea conflict, due to absolute respect to the teacher as a moral figure as well as an ultimate source of knowledge, groups will be likely to withdraw and stifle their point of view. In Asia-CHC, the teacher also outlines the intellectual paths to be followed and initiates all communication. If the teacher interrupts with questions, group may suddenly be aware that the very teacher is the class's actual authority. If the teacher interrupts with contradiction, doubt or disagreement, group may feel unmotivated to go on. Based on these considerations, we argue that teachers' positive interaction would exert significant influence in the effectiveness of group learning. We propose accordingly the following hypothesis:

> H1: Asian students will be more motivated to learn if the Teacher only shows positive reaction and uses no penalty during group discussion.

With regards to the power distance in the relationship between students, it is important to acknowledge that in Asia-CHC countries, leadership is part of a cultural hierarchy. It is quite popular that each class has a prefect, several unit leaders and eventually sub-leaders for small groups. There are strong hierarchy rules. If there is a group, there is a leader. Without a leader, the group is not stable in this view (Phuong-Mai *et al.*, 2005b). A leader must win the confidence of his/her subordinates and friends first and in turn, he/she will gain a high degree of loyalty and devotion from them. Chang (1976), Hui & Lin (1996) stated that the Asian group management is a management of people and interpersonal relationship.

However, this notion of hierarchical structure is not shared by Johnson & Johnson (1994) who stated that in CL, each member has a job to do, the team share leadership and has no formal leader. In fact, this shared leadership style reflects the 'participating leadership' style which was argued earlier to be more supportive in small power distance culture. It is rather obvious that from the cultural point of view, leadership in CL as suggested by Western based studies does not seem to be appropriate, taking into account students from large power distance cultures. On the basis of these considerations, we propose the following hypotheses:

> H2: Asian students will prefer a leader in CL.

> H3: Asian students will prefer leaders who are capable of maintaining a positive interpersonal relationship within the group.

2.2 Facework

For Asian, losing face inflicts extremely serious personal damage, and one should try to avoid it at any price. Allowing a person to save face is more important than telling the truth. Confucius said: 'Harmony and consensus are ultimate goals'. Asian-CHC collectivists are expected to avoid conflicts and confrontation in dealing with each other for the collectivist reasons of protecting social face and maintaining relationships (Hofstede, 2003; Leung, 1997; Ting-Toomey, 1988). In comparison, individualistic values lead people to confront conflicting ideas directly and openly. While individualists tend to use more direct, self-face conflict styles such as dominating or integrating style (Oetzel & Ting-Toomey, 2003), collectivists are likely to manage conflicts with more indirect styles such as avoidance and assuming an obliging style in order to avoid face loss. Another conflict resolution widely used by Asia-CHC is mediation - an outsider who usually occupies high status position and has a good relationship with as well as respect from both parties. In order to give face to this mediator, both parties may be willing to make concession in the name of honouring the high-status mediator. Shortly, individual face, as being discussed here, refers to face within a group and can be labelled *within-group face*. For collectivists, it is of extreme importance to have *within-group face* safely secured.

Collectivistic values of placing high priority on the in-groups have been proved to show more ingroup favouritism (Carnevale et al., 1992), arguably because they want to protect the collective face of the whole ingroup. This collective face can be labelled as *between-group face* since it refers to the social image of one group among others. Asian-CHC people can be collectivist and cooperative toward ingroup, and they are individualist and competitive towards outgroup. In sum, for collectivists, *between-group face* is of great importance and in need of being protected.

In educational context, it has been hypothesized that maintaining group harmony as a main goal affects the nature of group interaction in collectivist classroom (Carson & Nelson, 1996). Students are not encouraged to speak out, question or criticize for fear of either being wrong and thus losing face or for fear of making others feel humiliated (Tsui, 1996). They take significant fewer speaking turns than did their non-Asian classmates (Sato, 1992; Volet, 1999), suppress their personal desires, avoid conflicts and hence avoid criticizing their peers or claiming any authority (Carson & Nelson, 1996). They are reluctant to 'stand out' by expressing their views or raising question (Song, 1995). Neuman and Bekerman (2000) advised caution in introducing Asian students to a constructivist and cooperative learning approach.

We interpreted these findings as an indication that Asian-CHC students will have higher level of group participation only when there was no anxiety of damaging *within-group face*. This indication finds support from a recent study of Tjosvold, Hui & Sun (2004) who suggested that only when individual face is confirmed, Chinese students can discuss conflict openly. However, with respect to the *between-group face*, to the best of our knowledge, not much is known about the its impact on student learning. The questions of how *between-group face* manifests along different groups and how it can be manipulated to enhance student learning remain thus open. We interpreted the findings from cross-cultural studies presented above as an indication that Asian-CHC students will be more motivated to cooperate with each other if their *between-group face* is confronted or mildly threatened, for example by means of between-group competition or inter-group assessment. When one group's accountability is exposed and transparently accessed by others, *between-group face* may also trigger the need to be protected and secured, and consequently will motivate cooperation.

The two concepts of *within-group face* and *between-group face* together with the considerations discussed above led us to the following hypotheses:

> H4: Asian students will be more motivated to cooperate in group discussion if their within-group face is secured.
> H5: Asian students will more motivated to cooperate in group discussion if their between-group face is not secured.
> H6: Integrating conflict style resolution and 3rd-party help will be more preferable for Asian learners in solving conflicts within CL setting.

2.3 Reward structure
The two basic rules of reward allocation are defined as the *equity* principle (reward should be given proportionally to share of functions performed) and the *equality* principle (reward should be given equally among group members). Beer and Katz (1998) argued that individualistic societies differentiate people based on their performance and this makes individualistic cultures compatible with individual performance reward systems. In comparison, equality is preferred in collectivist cultures as it fosters group harmony (Deutsch, 1985; Leung and Bond, 1982, 1984).

In educational context, considerably large set of studies focus on the impact of factors such as frequency of social interactions, relationship closeness, individual performance, gender and

seniority. The tendency is that in individualistic cultures, student's distributive justice reasoning would favor equity-based in school context (Enright et al. 1984), they employ more equity style to acquaintance than friends (Pataki et al. 1994), have no deviation between male and female (Meeker et al, 1996) socially motivated students allocate rewards more in an performance-based style (Peterson et al, 1978). In contrast, reward behaviour of students from collectivist cultures tend to be influenced by non-equity rule. For instance, reward is still equally distributed when the one's performance is relatively poor but the personality is desirable (Chi-Yue Chiu, 1988); Both past and future interaction can affect reward allocation (Zang, 2001).

However, to the best of our knowledge, none of the aforementioned studies addressed reward allocation specifically in CL context, taking into account that CL is a particular environment where the principle of need and seniority do not have much influence, and where reward is distributed in form of grades and verbal/non-verbal recognition. How students from collectivist cultures perceive the fairness of such reward allocation in CL setting hence remains a question. Based on the implication of prior studies, we formulated the following hypothesis:

> H7: In CL context, the non-equity norms and group-oriented performance reward systems will be preferred among Asian students.

2.4 Trust and Group Identity

Trust. McAllister (1995) differentiates two types of trust as cognition-based trust and affect-based trust. The former is built on the knowledge and role performance and the later is built on the emotional bonds between group members. In individualistic societies, trust development is rather characterized by exchange parties faithfully adhering to their respective roles responsibilities and sharing outcomes equitably (cognition), whereas in collectivistic society, people can be highly motivated for task achievement by their personal loyalty and attachment to significant others (affect) (Farh, Earley & Lin, 1997; Griffith et al, 2000; Huff and Kelly 2003).

Group identity. As argued by Chen et al., (1998), group memberships such as schools, geographical origins, or family names, carry stronger psychological attachment for collectivists than for individualists. Hence, Chen and colleagues suggested that memberships from certain ingroups are more likely to trigger sufficient mutual identification to serve as condition for emerging cooperation. Note that for collectivists, social identities are relatively more salient than personal identities, whereas for individualists the reverse is true. On this line of consideration, it is very likely that for individualists, the new group identity should enhance personal identities, but for collectivists, it should enhance other existing group identities (Chen et al.,1998).

These two concepts *trust* and *group identity* have a close relationship since a critical condition for trust is identification to the group (Brodt & Korsgaard, 2003). In other word, trust is largely decided by the extent to which individuals define themselves in terms of particular group membership. For them to have a positive effect on cooperation, trust and identity should be synergized in an optimal condition. This indicates that for collectivists the new group should provide sufficient affect-based trust and at the same time bare an identity which complements other social identities and collective interests. In contrast, for individualists, the new group should guarantee cognition-based trust and at the same time enhance personal identities and the instrumentality of rational self-interest.

In educational context, one widely applied practice that can be traced back to the differentials of trust is group structure. Prior research strongly suggested that a heterogeneous group in learning ability is optimal for CL (Johnson & Johnson, 1994; Kagan, 1993; Slavin, 1988).

6

This cognition-based group forming, normally consists of one high achiever, one low achiever and two average achievers, reflects cognition-based trust which indicates that each group has equal opportunities to learn as long as every member of the group pertains to the fulfilment of one's prescribed responsibility. In all cases, students should not be allowed to form their groups based on friendship or cliques (affinity grouping).

However, while cognition-based group forming is highly suggestive and affect-based group forming is advised to avoid, the cultural perspectives in this issue seems to be neglected. If for collectivists, friendship carries stronger psychological attachment and this group identity is more likely to trigger sufficient mutual identification to serve as condition for emerging cooperation, then not ability but affinity group forming would optimize learning in collectivist cultures. Similarly, if collectivists can be highly motivated for task achievement by their personal loyalty and attachment to significant others in the group (affect-based trust), then not ability but again, affinity grouping would probably optimize learning. It is rather obvious that from the cultural point of view, CL grouping as suggested by Western based studies does not seem to be appropriate, taking into account students from collectivist cultures.

In an effort to escape the assumption that ability grouping is the best for CL, we decided to follow indications emerged from the intercultural discussion and examine the impact of affect-based grouping among collectivist students. Our hypothesis is, accordingly:

> H8: Cooperation among Vietnamese CHC students will be increased to an extend that the CL group should provide affect-based trust and at the same time bare an identity which complements students' other social identities and collective interests.

3. Research design

3.1 Method

To reveal the difference between CL as it is constructed and described in the West and CL as we argue to be more culturally appropriate to Asian CHC schooling, we opted for a classical reversed treatment equivalent group design with post test only. In this design, two groups were formed by means of randomization. The experiment group was given CL lessons applied principles derived from the proposed hypotheses which are argued to be culturally appropriate for Asian learners. The control group was given exactly the same volume and content of lessons, applied principles derived from Western CL theories and practice. Each experiment lasted approximately eight hours spreading through various learning sections. In total, students were expected to complete three CL task clusters, covering different disciplines such as social science (English as a second language, literature), natural science (Geometry, Applied physics) and Combination cluster (simulation, problem-based discussion, debate). The second composition of the experiment was a CL project run mostly outside class hour during 2,5 week in which each group had to produce a newspaper with various topics of interest.

From 2005- 2007, we conducted four rounds of experiments. The first three rounds belong to the formative phase which was meant for development and improvement of the principles. The last round is the summative phase which was meant to deliver definite research outcome. In this paper, we will present the analysis retrieved from the first two rounds.

3.2 Participants

All experiments were conducted in two Hanoi upper secondary schools: Nguyen Gia Thieu and Chu Van An. Both schools are up to national standard according to annual evaluation 2005 conducted by Special Board of Inspectors, Ministry of Education and Training. Two classes participated the first two rounds of experiments with 96 students ranging from 16 to 18 years.

3.3 Data gathering

A multiple-measurement method was employed which involves more than one data source: Questionnaire, Interview, Observation and eventually Learning Outcome. Each of the above data source has its strength and weakness due to the nature of the method or the situational circumstance of the experiment. We therefore argue that the use of both qualitative and quantitative data will enable us to confirm result by triangulation, a process which also develops and elaborate the analysis, providing richer details in describing our results.

4. Result

4.1 Leadership

H1: Asian students will be more motivated to learn if the Teacher only shows positive reaction and uses no penalty during group discussion.

Treatment
Experimental group: The teacher was instructed not to give any negative feedbacks and to abandon all usual penalties exercised in class. A list of 10 statements (compliments/ acknowledgement) was recommended to the teacher to be used when appropriate.
Control group: The teacher was left to interact with students as the way she/he deemed appropriate.

Result
Questionnaire (table 1) shows that experiment-students scored significantly higher in the first three items (comfort with the teacher; motivation from the teacher; and facilitation from the teacher). Interviewees from the experimental group expressed more enthusiasm, satisfaction and willingness to talk about their teacher than those from the control group. On the question "why do you think the teacher is more personal/ open/ and enthusiast than normal?", one of the most repeated reasons was that the teacher did not give critics which consequently made nobody felt being underdog or having shame.

	Experiment Group		Control Group				
Item	Mean	SD	Mean	SD		t-value	t-critical
Comfort with T	4.9	0.2	4.5	0.6		2.6	2.0
Motivation from T	4.7	0.5	4.1	0.9		2.6	2.0
Facilitation from T	4.7	0.4	4.0	0.9		2.7	2.0
T is interesting than normal	3.4	1.4	3.7	1.2		p=0.4	

Table 1-Teacher's (T) interaction scale (Prototype 2)   *Alpha=0.57*   *N=48*

Discussion: Positive interaction between teacher and students contributes significantly to secure the social positive face that students individually are in need in front of other class/group fellows. Feeling secured, students were likely to be more sensitive with teacher's comments and to better benefit from teacher's facilitation. The hypothesis is supported and it indicates that positive interaction from teachers are likely to motivate learning since this interaction style originates no harm to students' individual face and social identity. The CL principles we propose and argue to be culturally appropriate to apply for Asia-CHC students are:

Principle 1: Teacher only shows positive reaction and uses no penalty during group discussion.

H2: Asian students will prefer a leader in their cooperative learning group

H3: Asian students will prefer leaders who are capable of maintaining a positive interpersonal relationship within the group.

Treatment

Experimental group: In each task, all members were asked to choose a single leader based on their own criteria.

Control group: In each task, each member of a group was assigned a role to fulfil, as described in Johnson & Johnson (1994), Kagan (1993).

Result

With regards to informal CL task (short task performed in class), data from the questionnaire in table 2 shows that experiment-students strongly supported the essential need of group leader and that a good leader would enhance group performance whilst control-students stayed rather neutral.

	Experiment Group		Control Group			
Item	Mean	SD	Mean	SD	t-value	t-critical
There must be a group L in CL*	4.8	0.3	3.0	0.9	8.5	3.6
A good L would enhance group performance**	4.5	0.7	3.3	1.3	3.7	2.7

Table 2-Leadership (L) informal CL task (Prototype 2)   *Alpha= 0.78   N=48*
*p<0.01; df=43   **p<0.001; df=27

While 16 out of 18 experiment-students summoned for interviews completely advocated the importance of leadership in group learning, only 5 out of 18 control-students reflected similar way of thinking. However, 10 out of these agreed that there were someone in the group who more or less took the leading role. These group mates were described as (i) active learners who showed good knowledge of the subject or quick-thinker who could produce many ideas though not always effective; and (ii) strategic learners who could formulate, organize and administrate working process. Surprisingly, the interviewees on the one hand didn't deny this leading role, but on the other hand refused to name it *leadership*. They insisted on calling those group mates "active learners" instead of "group leaders". According to them, the reasons why groups did not have leaders are: (i) The teacher did not instruct them to appoint a leader, so there was of course no leader; (ii) Tasks are quite clear so everybody knows already what they have to do; (iii) Tasks are quite short so the time pressure didn't allow loafing or any harmful behaviours that required leader's intervention.

With regards to formal CL (projects that run outside class over a period of 2,5 week), both experiment- and control students recognized the importance of leadership and its related requirements (table 3). In general, the leaders in both groups were likely to be the best students. However, both delivered surprisingly similar means on two requirements of leadership: cognitive ability and leadership ability (M=3.8/3.9 and M=3.8/3.7, respectively). Both experiment- and control students were likely to agree that only being good in subject is not enough to be a leader. They matched extremely well with each other in giving opinion about the main task of the leader is to create group solidarity, interconnect group members and provide encouragement, which are all non-cognition related, all interpersonal management related. Professionalism in this case is not the most essential criteria since the strong interpersonal skill would be more likely to trigger the group cohesion and dedication. This echoes the same voice with our reasoning leading to this hypothesis, that Western leadership is likely to be the management of work whilst CHC leadership is likely to be the management of people.

	Experiment group		Control group	
Item	Mean	SD	Mean	SD
Being good in subject is good enough for L	2.0	1.1	1.8	0.6
Your L is the best student in subject	4.1	1.3	3.8	1.5
The best in subject should be L	3.8	1.5	3.9	1.1
Students with L ability should be L	3.8	1.0	3.7	0.8
Main task of L is to create group solidarity	5.0	0.0	4.9	0.3
Main task of L is to interconnect and encourage group members	4.6	0.7	4.5	0.6

Table 3-Leadership (L) formal CL task (Prototype 2)Alpha=0.66   *p>.05*

Discussion: With regards to the informal CL, we argue that the imposed learning mode has exerted influence on how students perceived leadership. In experimental groups, students experienced designated hierarchy with well-defined trait of leadership and clear responsibility, and probably through this setting did they realize and appreciate the benefit of having a leader. In control groups, as true follower of the instruction as Asian students might be, the presence of a formal leader was supposed to be unnecessary since the teacher did not mention it, even when high achievers emerged to leading role, they were considered active group mates while actually their correct label should be *informal leader*. Short well-structured tasks also helped to accentuate this reasoning, that a leader in this learning context was a good thing to think about but not per se a must. Our hypothesis is partly supported with a slight revision that Asian students might appreciate leading roles to be formally assigned though it is not always necessary to formally label this role as "leader".

With regards to the formal CL which is a long ill-structured task, both experiment- and control students had a strong need on leadership and both agreed that leadership in this case should be closely linked with interpersonal management. On the basis of these consideration and data analysis, we propose the following principles which are argued to be culturally appropriate to apply for Asian learners:

        Principle 2: Appoint a formal group leader in both formal and informal CL.
        Principle 3: Consider the criteria of competence in interpersonal relationship to
                    choose leader for formal CL.

4.2 Facework

    H4: Vietnamese-CHC students will be more motivated to cooperate in group discussion if their within-group face is secured.

Treatment
Experimental group: To secure *individual face*, various techniques of face-confirmation were applied to make sure that the chance of face loss would be minimized. Examples of these techniques are (i) Using built-in conflict: each group split in two sub-teams and compete with each other to create as many arguments and counter-arguments as possible for their group; (ii) Blinding individual accountability: individual contribution is not barely exposed to others, all groups members used the answer-chips of the same colours...etc.
To examine the effect of face secure between teacher and students, in the second debate task, the teacher was instructed to take one side of the debate whilst the students advocate for the opposite side. The topics of discussions in the two prototypes are: (i) What is good and what is bad about computer games? And (ii) Can students excel their teacher in subject competency?

Control group: Students were put in a situation where *individual face* is not always secured. Students for example had to expose their individual contribution which indicated how good or bad they had contributed to the group (each group member used answer-chip of different colours). Another application was to have students involved in 'Round Table' (Kagan, 1993; Johnson & Johnson, 1997) where individual accountability was clearly showed.

To examine the effect of face secure between teacher and students, in the second debate task, the teacher was instructed to act as a neutral coordinator to collect all the different ideas from students.

Result

In general, a much more enthusiast ambience was captured in the experimental group than the control group. Students talked, argued and advocated each other in a rather noisy mood that the teacher even commented that it was good that there were no class around, otherwise this voice of knowledge would had been mistaken as turbulence and losing control. It was noticeable that students were very concentrated on counter-arguing, producing as many opinions as possible, and not on minding their word in fear that it would by any chance violate the others' face.

The second debate task was conducted between the teacher and students who sided together. When being informed that the teacher would take the side of advocating "for computer game" (prototype 1) and "students' ability to excel teacher" (prototype 2) whilst students themselves would advocate for the very opposite sides, a wave of surprise spread the room. Logically assumed, students had predicted that their teacher would represent the side of anti-computer game since all teachers, as a matter of fact, try to abandon computer games. Similarly, a teacher's knowledge has been traditionally supposed to be ultimate and no one would ever dare to question it. This unusual switch of social-desired role immediately unlocked the inviolable mental barrier that traditionally separates teacher from students. For the first time, the sacrosanct territory of The Teacher was infringed, but *with* a generous permission. Students were clearly motivated to go against their own teacher, knowing that this is the acceptable and the only way to show their competence. Each time the teacher came up with an argument, there was always some counter-arguments arrived from the students. One of them even stood up on the bench with his hand shot in the air, desperately wanted to utter his thought. Some other hurried their mates to think quicker, warning that the teacher was going to win and they definitely did not tolerate that. At the end of the debate, a few students said regretfully that they weren't called to speak, and it was probably because they didn't make their raising hand visible enough.

Compared to the experimental group, the enthusiast air was missed in the control group where traditional group discussion was applied. Firstly, individual accountability was emphasized by means of exposed individual contribution. Each group member used a different colour chip while discussing and it was obvious who contributed the most and least. Secondly, the sensitive topic being discussed exert strong influence in the level of productivity. Some students hesitated to write down an argument. In one case, a male student wondered if the teacher would cast doubt on him and suspect him to have played too much computer game. Other students wrestled with the decision or confronted with negative consequences ("No! We can't say that teacher has out-of-date knowledge!"; "Drop this idea immediately!"; "You'll die if she (the teacher) knows you said so!"). Obviously, the topic required students much more than just formulating ideas, but encroaching a forbidden domain where the teacher is traditionally and continuously acknowledged as a figure of absolute wisdom. Table 4 shows that the number of arguments and opinions produced by the control group is also significantly lower than that produced by the experimental group, also the number of students raising hands for public expression of opinions in the control group is significantly lower than that of the experimental group.

	Experiment Group		Control Group				
	M	SD	M	SD	t-value	t-critical	df
Prototype 1(*)	32.8	2.4	20.1	5.0	5.4	4.5	10
Prototype 2	29.8	10.2	15.6	2.5	3.2	2.5	5

Raising hand	20	2.8	8	1.4	5.3	4.3	2

Table 4– Number of arguments/opinion produced by experimental and control group.   p<0.05   *p<0.00 N=96

Data from interviews also supports our hypothesis. In prototype 2, only one out of nine experiment-students admitted that she was worried about the teacher when advocating her point of view. All other interviewees confirmed their convenience while taking part in the debate. One of them emphasized that there was absolute no reason for hesitation, they felt motivated to prove that a student could probably triumph in knowledge even though "…everybody knows that *of course* a student cannot be better than the teacher". This indicates the power of built-in conflict. As certain as they were about the teacher as ultimate source of knowledge, did they manage to produce a splendid amount of arguments proving the very opposite.

Also in prototype 2, three out of nine control-students admitted their concerns while debating publicly. According to one student, it was very *logical* that students had concerns. Nobody talked badly about his/her own teacher without concerns. It has something to do with "moral".

Discussion: The main difference between the two settings is individual face is secured in one and not secured in the other. For experiment-students, their social identity was well-secured, each of them felt safely with the thought that the debates they were engaged might take the form of a conflict where everybody had different ideas, but the most important thing is it was a conflict caused by nobody so nobody was to be blamed, in another word, a conflict that was meant to be: a good-will conflict. For control-students, the sensitive nature of the topic put each individual in a position of guard. Facing the danger of face loss, students were not completely freed from all potential concerns that may prevent them from frankly and uninhibitedly expressing their ideas without hindrance. Individual face was not confirmed and therefore became vulnerable. Students minded their word in order not to violate the face of others and not to put their own face in danger. Consequently, the flow of ideas had to wrestle with many mental obstructions to make its way finally verbalized.

In the second debate task, although the teacher in the control group did not participate in the discussion and took a traditional role as a neutral coordinator who was in charge of briefing opinions on the board, labelled as 'neutral' as she appeared to be, however, she actually imposed a silent threat on students. It was not clear for students what she was going to do with all information being exchanged. A neutral judge in this lesson could very likely become a strict teacher who would use exposed information today as a source of suspicion tomorrow. This concern was especially hard for male students who were more often criticized for addiction of computer game (prototype 1) or for low achievers who were often criticized for not making progress, even high achievers could easily risk being labelled as "arrogant" (prototype 2).

To conclude, our hypothesis is supported, indicating that individual face confirmation tends to exert positive influence in behavioural and cognitive learning outcomes. The culturally appropriate principles we propose to apply for Asian learners, based on these considerations are:

> Principle 4: Create face-confirmation for each individual within group.
> Principle 5: Use group accountability instead of individual accountability.
>
> *H5: Vietnamese-CHC students will more motivated to cooperate in group discussion if their between-group face is not secured.*

Treatment

Experimental group: To create an environment where *between-group face* can be mildly threatened, we put the whole lesson in a between-group competition in which each group had to strive for a single prize and a group name honouring. After each task, groups were also asked to proceed inter-group assessment. This was meant to expose group accountability, to make one group's achievement transparent to others, and to have groups keep track of one another.

Control group: A between-group competition setting as well as inter-group assessment were not applied in the control group. Group grades were not publically exhibited.

Result

The setting of between-group competition created two different ambiances. In the experimental group, competitive spirit filled the air. There was always someone playing the role of a cheerleader or a motivator, there was always something to be said and done in order to put spurs to the group process, either implicitly or explicitly, verbally or with gesture, by the group leaders or by a group member. Some students even employed inappropriate language by using words such as: "revenge", "our mortal enemy" and "friends or foe". The teacher had to correct them and suggested the use of "pay-off" and "our opponent" instead. She also stressed that the class was not a battle but a "healthy competition" which required fair-play and learning from mistake, just like the Olympics. With inter-group assessment after each task, group members involved in another settings of group identity confrontation. Since the grade was given by the competitor, in all possible attempt to secure fairness, each group quickly felt the need to scrutinize where it went wrong and thus how it went wrong and consequently, how they should have done and what they have learnt from all the mistakes.

In the control groups, the setting of "*no* between-group competition" did not really give opportunity for such an overt atmosphere of effervescence. The enthusiast air was missing since students did not verbally or physically show their competitive spirit during the task execution. However, observational data suggests that the level of competitive expression during task execution between experiment- and control-students varied but the level of curiosity about working process and final grade of others groups remained similar. Control-students might generate less lively climate with their non-competitive learning mode, but probably it doesn't mean that competition was entirely absent.

The data from questionnaires (table 5) also points to the same direction. In both groups, students either overtly or latently competed with each other. They equally yearned for the winning and this very desire motivated them to put on more effort. They both long to know the achievement of other groups, in order to compare and self-evaluate.

	Experiment Group		Control Group				
Item	Mean	SD	Mean	SD	t-value	t-critical	df
Your group compete with other groups*	5.0	0.0	4.3	1.2	2.6	2.0	21
You want to know the grades of other groups	4.7	0.6	4.1	0.2		p>0.05	
You want your group to win	4.9	0.2	4.4	1.1		p>0.05	
The desire to win motivates you to work harder	4.9	1.3	4.5	1.0		p>0.05	

Table 5- Attitude towards competition (Prototype 2). (*) p<0.05   Alpha = 0.88

Data from interviews shows that students from experimental group had good reflection on the lessons which we categorized as the following:
- Competition could play as glue to make all members stick to each other as one unity, strengthen the group cohesion.
- Competition is fun simply because it is competition. Winning is the ultimate goal for all members.
- Competition gives chance to be publicly recognized as group effort and group victory.
- Competition stimulates learning.

- Competition is an opportunity for self-evaluation and learning from mistake.
- Competition motivates effort, and more effort means better learning.

Whilst control-students more or less had similar reflection, they also take rather situational reasons as motives to compete:
- We competed with group 3 and 4 because they sat right next to us.
- The best student sat in our group so we were under the pressure to show off.

Discussion: With experiment-students, we found that they not only enthusiastically took part in the competition but also understood the rationale and benefit of the game. They advocated for the advantages of competition and saw the good side even in a losing case (learning from mistake). With control-students, we found that they might have been psychologically in a position ready to compete. When the trigger was not officially pulled on (instruction to compete from the teacher), many other causes have automatically sprung as secondary ground to act on, either personal or impersonal, either rational or irrational, either cognitively related or socially related. The competition even occurred unintentionally, without the students being fully aware of the act until they were asked to reflect on it during the interview. For some students, already the setting of more than one unit was naturally linked to an inherent contest.

At this point, it is important to mention that the educational system in Vietnam, as well as in other CHC countries, creates a strong competitive climate among students (Park, 2002; Pong & Chow, 2002; Young-Ihm Kwon, 2002). Group work hardly exists. Each student measures himself or herself against others and not against him-or herself. The best student is the moral. However, we have seen that in both control and experimental settings, groups of students strongly competed with each other, even without instruction to do so. We argue that the group setting has played as an environment in which *between-group face* is triggered and students have automatically shifted from individual competitive mode to between-group competitive mode. The process of changing from fighting for each individual's own sake to fighting for a cohesive in-group happened voluntarily, spontaneously and totally unasked. This process clearly illustrates the significant impact of *between-group face* which lends support to our hypothesis. Seeing the benefit of the confrontation among group faces (higher motivation, learning from mistakes), we propose the following culturally appropriate principles which are suggested to apply for Asian learners:

Principle 6: Create need for face-protection between group (e.g. competition).
Principle 7: Use inter-group assessment.

H6: Integrating conflict style resolution and 3rd-party help will be more preferable for Asian learners in solving conflicts within CL setting.

Treatment
Experimental group: In the first prototype, a simulation was run which based on a real life situation that once happened in a secondary school in Hanoi before. Half of the class was assigned with 4 different roles representing 4 different conflict resolutions: Dominating; Avoiding; Obliging; and Integrating. Students were suggested that the teacher could be consulted if the group could not come to a final decision. The other half played the role of observers. In the second prototype, the simulation was replaced by a case study. Each group was provided a detailed document describing the situation that they need to discuss. At the end of the discussion, students made their choice from 6 available options (Dominating; Avoiding; Obliging; Integrating; Consult the teacher; Consult significant others).

Control group: Students in the control groups underwent basically the same tasks, however the choice of integration and mediation were absent in both prototypes.

Result
Data retrieved from student logbooks shows that the use of 3rd party help is strongly supported with 62,2% (prototype 1) and 42,2% (prototype 2) of the students came to a group consensus that a mediator was needed in order to solve the conflict. Note that control-students though not being provided the choice of mediation and integration came up with these solutions themselves by simply adding them to the list. Their most preferable indications as mediators are teachers, parents, or group leaders.

Looking at the differences between two prototypes in which simulation was used in the first one and case study was used in the second one, we found an astonishing gap between two versions with regards to the preference for dominating style (table 6). With simulation, only 4.2% of the students advocated for dominating style while in with case study, this number raised to a surprisingly high level: 40%. Besides, the percentage of students showing preference for avoiding and obliging style was significantly small.

	Prototype 1	Prototype 2
Conflict styles	Simulation	Case study
Dominating	4.2	40.0
Avoiding	0.0	0.0
Obliging	0.0	2.2
Integrating	33.3	15.6
3rd party help	62.5	42.2
Total	100%	100%

Table 6-Conflict style preference per prototype

Discussion: Firstly, data analysis retrieved is consistent with what research has proved. Mediation plays an important role in Asia since this third party, having the respect of both sides, would resolve or help to resolve the conflict in a way that could minimize the damage and face loss. Control-students, though not provided with a mediation choice, perceived the problem not to be solved properly without the involvement of a respectable third party. Interestingly, their indication group leaders as mediator supports our hypothesis of the need for leadership in CL as discussed in section 4.1

Secondly, avoiding and obliging were not chosen as a favourite conflict resolution, which is contradictory to what has been proved by various research on conflict resolution (Jehn & Weldon, 1992; Kirkbride, Tang & Westwood, 1991; Tse, Francis & Walls, 1994).

Thirdly, the huge difference between percentage of students choosing dominating style in the first and second prototype brings up some questions. Looking at the nature of the difference between simulation and case study, the first fundamental variance came to mind was that with simulation, students brought the conflict in actual context with physically, verbally and spiritually support for their point of view, whilst with case study, students were somewhat outsiders who judged a case in a safe environment with an "if" status. We argue that in the first prototype, students might have seen how dominating style was actually practiced in the real life, built up a dislike for this style through what they observed, and finally opted for 3rd party help and integrating style. In the second prototype with case study, students did not have to actually involve in a conflict but stepped outside to put themselves in a fictitious situation. Since it is fictitious, a decision making is only subjected to initial perceptive reasoning, something that is worked out in mind but not (yet) through observing or experiencing in reality. P2-students might have thought of dominating style to be "cool" and "tough". They might have grabbed this chance of being different, even revolutionary than normal since they knew for sure that the situation is not real and their status is safe.

However, with mediation and integrating styles rather consistently being selected as a preferable conflict resolution, within the framework of this formative study, we found

sufficient evidence to propose the following principles, arguably to be culturally appropriate to apply for Asian learners:

Principle 8: Consider 3rd-party help as a group conflict resolution with respectable others such as teacher, parents or group leader as mediators.

Principle 9: Consider integrating style (flexible combination of all potential solutions) as a group conflict resolution with the use of

4.3 Reward structure

H7: In CL context, the non-equity norms and group-oriented performance reward systems will be preferred among Asian students.

Treatment
In this study, we employed three types of rewards: grade, teacher's approval and verbal acknowledgement, and tangible prize.
Experimental group: A shared-grade system was applied. The teacher was instructed to give comment/compliments to group as a whole instead of individuals. At the end of each task and the lesson, each group received some tangible prizes and they can decide themselves how to distribute these rewards.

Control group: A combination of group and individual reward was applied. Students received group grade but individual tangible reward. Through individual accountability, group can access each member's contribution and evaluate this contribution individually. The teacher was instructed to give compliments to good performers. At the end of each task and the lesson, each group received some tangible prizes. There was a hint (indicated in the log book) that these prizes were meant to be given to the best student as supplement rewards for excellent individual contribution.

Result
With regards to the control group where tangible rewards were indicated to be given to the best students, in 7 out of 12 control groups, rewards were immediately divided among *all* group members instead of being kept by the best students. With regards to the experimental group, surprisingly, despite the between group competition setting, 4 out of 12 groups shared their rewards even to their competitors. There might have been more of this sharing if the teacher had not stopped their students in fear of class disorder and time shortage.

Questionnaire (table 7) data shows that regardless of the experimental or control setting, students tend to agree that (i) reward should be equally distributed among group members; (ii) sharing the best (rewards) and the worst (penalties) is the group's power; (iii) Being awarded and recognized motivates the learning. However, students did not agree that only one or two group members got the rewards would jeopardize group's solidarity. Students from experimental group were more agreeable than students from control group on the prevalence of group recognition over individual high achiever recognition. The last item in the scale clearly shows that experiment-students were far more satisfied with the amount of rewards than control-students even though both groups received the same in quantity and quality.

Item	Experiment Group		Control Group			
	Mean	SD	Mean	SD	t-value	t-critical
R should be equally distributed	4.7	0.4	4.4	0.8	p>.05	

16

Sharing is group power	4.4	0.8	4.6	0.9	p>.05	
R and recognition (recog) motivate learning	4.7	0.4	4.3	0.9	p>.05	
Individual R jeopardizes group	2.7	1.7	3.2	1.4	p>.05	
Prefer group recog. over Individual recog*.	4.4	0.7	3.6	1.3	2.3	2.0
No public recog. of High and Low achiever**	4.4	0.7	3.4	1.4	2.9	2.7
There was sufficient reward***	4.5	0.5	2.5	1.4	5.9	3.8

Table 7-Rewards allocation (Prototype 2)   Alpha= 0.61   N=48
* p<0.05; df=32   **p<0.01; df=31   ***p<0.001; df=26

Interview data shows that students seem to make clear distinction among recognition, grade and tangible reward. First of all, several interviewees experienced great feeling of pride when being recognized by teacher in front of their mates and they admitted that this public acknowledgement "...was sweeter than a grade of 10". Second of all, all interviewees (18) agreed that a shared-group grade was fair enough simply because all members had worked together. Thirdly, tangible reward was agreed to be used to motivate the best achievers in the group but this reward is *expected* to be equally shared among group member afterward. In this way, the best achiever benefits symbolically from the title "best student" but materially, he/she is supposed to divide his/her reward equally among all group fellows.

Discussion: As a Vietnamese proverb puts it: 'Eating alone causes pain', our hypothesis is supported since students in our experiments strongly employed the norm of equality in various patterns of reward allocations. How grades, tangible rewards or teacher's verbal acknowledgement are supposed to be distributed is significantly based on equalitarian values. In this view, tangible reward is definitely group shared processions and grade is fair to be shared by the whole group. Besides, teacher's verbal acknowledgement tends to be highly appreciated with a value even more than that of a maximum grade. We therefore propose the following principles, arguably to be culturally appropriate to apply for Asian learners:

> <u>Principle 10</u>: Use equality-based reward when giving grade and tangible rewards.
> <u>Principle 11</u>: Teacher's comment should focus on group as a whole while high achievers may receive some extra complement.

4.4   Trust and Group identity

> *H7: Cooperation among Vietnamese CHC students will be increased to an extend that the CL group should provide affect-based trust and at the same time bare an identity which complements students' other social identities and collective interests.*

Treatment
Experimental group: Three treatments were applied in the experimental group (i) Affect-based trust group forming in which students were allowed to form groups on themselves. There was 40% of the groups consist of all-high achiever or all-low achiever; (ii) To involve another social identity, a family letter was added to the treatment. The letter was written by the researcher, basically informed parents about the experiment, the new learning mode and suggested some motivation strategies that parents might follow to support their child. This letter was authorized by the teacher with signature and delivered to every student's family 3 days before the experiments; (iii) To enhance the friendship identity and trust among group members and to create environment for the transition from a friendship identity to new learning identity, 30% time of the trial lesson was spent on group building games.

Control group: (i) Students were assigned according to academic achievement. The teacher used GPA of the first semester and her personal consideration to make sure that every group has equal learning capacity; (ii) Families of students from the control group did not receive the letter; (iii) No group building was conducted during the trial lesson.

Result

During the trial lesson and the experiment, experiment-students underwent a transformation from existing friendship identity to learning group identity with the following aspects:

- Link existing group position with new group position: *We have to remain the "elite" girls of the class* (these students were the top girls who all came from well-to-do families. Their motto was "elite in how you live, elite in how you learn"); *Who breaks the law will have to treat the whole group yoghurt* (this group transferred a "punishment" type they used among their social friendship relation to the new situation in learning).
- Confirm group identity: *We have always been that way; Long live the power of Cow & Fly; Losing prize not losing drive-that's our motto, right...*
- Involve between-identity comparison: *They always want to beat us, here as well; Those guys brag again, just like normal; Hey, do something, The Power 5 can not be left behind!...*

In the control group, the cognition-based group forming made sure that all group were more or less cognitively equal with one high, one low and two average achievers. There was no shared identity existed among these group members (except identity as class mates). A new group learning identity needed to take shape from very beginning. During the lesson, groups slowly build up their own learning identity under the influence of (i) what they have achieved in learning; (ii) how group members interacted with each other; and (iii) latent between-group competition. Out of these three aspects, the last played as the most important source of building up group learning identity in the control group.

Data from questionnaire (table 8) shows that both experiment- and control students preferred to work with class mates they personally know, articulated to work better with their friends. Experiment-students were significantly more satisfied with group forming style and strongly wanted to positioned in the same group should group learning happens. Finally, experiment-students were more satisfied with their group learning ability, despite the fact that affect-based group forming created some groups with all high-fliers and also groups with all low achievers. Intentionally formed based on cognitively heterogeneous ability which made sure that all groups are cognitively equal, however, control-students showed lower satisfaction when they judge their group learning ability.

	Experiment Group		Control Group				
Item	Mean	SD	Mean	SD	t-value	t-critical	df
Prefer to be in the group with close friends	4.9	0.2	3.9	1.3	3.3	2.0	22
Work better in group with close friends	4.9	0.2	4.1	1.3	2.6	2.0	22
Satisfied with the present group forming	4.8	0.5	3.5	1.3	4.1	2.0	28
Satisfied with the present group's cognitive ability	4.2	0.7	3.1	1.2	3.3	2.0	34
Want to be in the same group next time	4.9	0.4	3.3	1.0	6.2	2.0	26
Feel more attached to the group after the lesson	4.9	0.2	4.0	1.1	3.4	2.0	23

Table 8-Group forming (Prototype 2) $p<0.05$ Alpha=0.80

Fifteen out of 18 students from both experimental and control groups summoned for interviews agreed that they preferred working in groups with close friends. The reasons given for this preference vary from social to cognitive element. According to students, the trust among close friends would play an important role to bind them together, to motivate and even force them to fight for the sake of the group, in the face of the group in the competition with others. Some students mentioned that high achievers in the group could be a harm rather than an advantage since this one will dominate the whole working process and downplay others. Another frequently repeated remark was that when working among people they know well, the fear of face damaging would be minimized and that the job would be done better. With respect to cognitive element, three students mentioned that each group should try to stand on

their own feet, work harder with more and more effort in stead of blaming that they don't have a high achiever in their group.

Discussion: In the affect-based group forming, new (learning) identity is established upon a solid foundation of existing friendship. This new identity is based, enhanced and confirmed but not replaced the friendship identity. Moreover, this friendship identity came back again and again during the formation of the new identity, played as a foundation to direct and motivate groups to act according to an afore-agreed mentality (to be elite, to be punished for wrong-doing; to not lose drive…etc). In another word, experiment-students applied and adjusted the values they shared in friendship social situation to a new learning situation where they had to make themselves different from other identities not only by social but also cognitive characteristics.

The hypothesis is supported since results show that trust element exerted significant influence in how students perceived effective group learning. Affect-based trust among Asian learners, as we argued earlier, is based on interpersonal relation among group members which is not necessarily related to task or levels of competence. In this vain, a top learner in the group does not necessarily guarantee group success while some average or even an all-low achiever group but consists of well-connected friends would trigger a much more powerful sense of cognitive confidence and probably lead to better cognitive performance.

Result from "family letter" treatment
All students in our interviews reported that their parents did give them motivation and encouragement, however, this source of motivation was rather general than specific. The typical remark that students received from parents is: *That's good, you need to try your best.* Non of the parents provided their children with concrete advices or experiences from their schooling days as suggested in the letter. Only a few parents were mildly interested in what group learning is and they themselves admitted that they never took part in such learning activity before. One student said during the interview: "Parents don't normally care about what specifically we are learning at school. All they ever want to know is good grade and good comment from the teacher".

Discussion: In fact, there has been always a paradox of Vietnamese parent involvement. On the one hand, they express great care for their children's education, with high expectation and unlimited investment (Park, 2005). On the other hand, there is a small amount of parents involving in actual educational activities or instructional/policy making decision. According to the scale of Marsh and Willis (2003, pp. 212), Vietnamese parents score not higher than the lowest rank on the parents involvement ladder, i.e. "receiving reports about their children progress". They don't practically, passively or actively take part in participating learning activities, assisting (non)-instructional tasks or making decision. However, from the cultural point of view, this scale of parent involvement is created by Western researcher, based on Western point of view of how parents should involve in schooling, in a Western context of educational and social organization. Using this scale, this passive role of Vietnamese parents is rather difficult to explained since it directly confronts with their active role in moral support, long-term commitment and generous investment in education for their children. A great number of Vietnamese parents put their house and all properties in mortgage to support their child studying abroad. CHC parents are famous for their unusual high expectation which exerts strong pressure on children attitude towards learning (Pong & Chow, 2002).

A way to tackle this paradox is to look back at how a teacher is seen in CHC. An ultimate source of knowledge and utmost respective figure is what not only students see a teacher but the whole society. Parents since thousands year, either as farmer, artisan or businessman, consider themselves as docile listeners when it comes to the ivory tower of literature. In this way, schools have become and continue to stay as sacrosanct realm of teachers where parents

have little to do with except encourage their children to try harder and invest moral and financial support for this long-term commitment. Teachers don't expect parents to involve in learning activities and parents don't see themselves as qualified enough to interfere in teacher's business.

The main argument under this hypothesis is that collectivist is likely to be influenced by social acceptance of a certain ingroup. Having the family involved not only put students under the pressure of gaining acceptance from parents but also means the involvement of another ingroup (family) which would complement the existing ingroup, i.e. the cooperative learning group at school (*identity element*). The combination of identity and motive elements was clearly recognized through interview data in which students reported that fact that family knows about this experiment did exert influence in their motivation to learn: *It was a pressure, parents know so they would surely ask how did it go; You don't want to disappoint your family so you try to win, so you can tell them that you did good job; I know my mother would go to the neighbour and tell them about that, means I'd better do my best...* In the last statement, it was interesting to see that the influence of extended ingroup was actually extended to another ingroup outside the student's family, i.e. the neighbourhood where she/he lived. This hypothesis is partly supported by interview data, however, the treatment (one family letter) appeared to be just one of many possibilities as to involve social extended groups. To achieve more satisfied effect, more than one form of family involvement over longer period should be considered.

In short, based on the analysis and these considerations, the following principles are suggested to be culturally appropriate to apply for Asian learners:

> Principle 12: Use affect-based grouping that compliments the existing group identities (friendship, geographical origins, sport group or family connections…)
>
> Principle 13: For students who do not share the same social identity, create new group identity by placing them together in various collective activities (games, sports, table seats, social work, family connections…) before grouping them in one CL group.
>
> Principle 14: Involve extended social identity in the CL process (family, other friendship groups, community, neighborhood…)

4.5 Overall effect

As can be seen from the table 9 and 10, students from the experimental group scored overall higher means than students from the control group with significant difference in Task Cluster 1 and 3. Experiment-students were more satisfied with their group performance outcomes. Most importantly, experiment-students believed that they have gained a great deal of new knowledge, and the level of this belief is significantly higher than that of control-students. At the end of the lesson, experiment-students reported to have put more effort on group work.

		Experimental Group		Control Group					
Learning outcomes		M	SD	M	SD	t-value	t-critical	df	p-value
Task Cluster 1 (Social science)	Pro1	7.3	1.2	5.3	1.6	2.4	2.2	10	<.05
	Pro2	28.5	1.6	6.3	1.6	2.2	2.2	10	<.05
Task Cluster 2 (Natural science)	Pro1	7.1	1.4	6.5	1.3	0.8	2.2	10	>.05

	Pro2	6.3	1.2	5.3	0.8	1.6	2.2	10	>.05
Task Cluster 3 (Social skills)	Pro1	32.8	2.4	20.1	5.0	5.4	4.5	10	<.05
	Pro2	29.8	10.2	15.6	2.5	3.2	2.5	5	<.01
Group Project (Combination)		9.4	0.4	8.8	0.6	1.6	2.2	10	>.05

Table 9- Learning outcomes

Item	Class A		Class B					
	M	SD	M	SD	t-value	t-critical	df	p-value
Satisfied with group's performance	4.2	1.0	3.9	1.2				>0.05
Satisfied with what you've done	4.3	0.9	3.8	1.0				>0.05
Satisfied with what other's done	4.7	0.8	4.2	0.8				>0.05
Other members have tried their best	4.7	0.8	4.1	1.0				>0.05
You have tried your best	4.7	0.6	3.9	1.2	2.6	2.0	32	<0.05
You have gained new knowledge	4.6	0.4	3.8	0.7	4.3	3.5	43	<0.001

Table 10- Overall general opinion   *Alpha=0.74*

5. Conclusion and limitation

To the extent that an optimal level of cooperation is necessary for all societies, regardless of their cultural orientations, it is crucial to explore how cooperation is achieved differently in different cultures. That's the reason why despite the fact that numerous Western studies show the benefits of CL, this method should be researched, rethought and reconsidered when being applied in another cultural context. Combining insights from research on culture, research on cooperation and research on CL, our study produced a number of intriguing results:

First of all, leadership, though does not attract much attention from Western CL theories, proved to be a crucial element for cooperation among Asian learners. The notion of shared leadership with specific cognitive roles assigned to each member from the West is also less preferable. Asian learners are likely to favour the traditional leadership style which could fulfil the mission of maintaining a harmonious considerate relationship among group members.

Second of all, we introduced a binary concept of face: *within-group face* indicates individual social image and *between-group face* indicates group's social image. Both types of face are extremely vulnerable in Asia. Our finding suggested that the optimal setting for CL in Asia is where *between-group faces* are confronted through inter-group competition and inter-group evaluation, while at the same time *within-group face* must be confirmed.

Third of all, reward allocation vary between the two cultures. Asian learners are likely to adopt an equality style in various patterns of reward allocations. In this view, tangible reward is definitely group's shared procession and grade is fair to be shared by the whole group. In addition, motivation in Asian classroom is intrinsic and group-oriented. Students highly appreciate approval and verbal acknowledgement from the teacher and expect it to be addressed to the whole group instead of individual, regardless of negative or positive remarks. This is a view which is contradictory to the CL classroom in the West where students are rewarded by points, certificates and prizes, where CL methods introduces a heavy emphasis on external incentives (Slavin, 1990) and test scores constitute the hallmark of academic success.

Forth of all, our findings strongly challenge the notion of heterogeneous ability grouping which is dominant in the West. Asian learners are likely to believe that not ability but affect-based grouping style will allows them to benefit from the closeness that already exists among group members. Through affect-based grouping, learners create a new learning identity which is based, enhanced and confirmed by the existing friendship identity. In other word, this new learning identity complements friendship identity and triggers mutual identification to serve as condition for emerging cooperation.

In this paper, we have derived a series of instructional design principles for CL to be applied for Asian learners by combining insights from research on culture, research on cooperation and research on CL. Despite abundant research in all three areas, little work exist that directly addresses the issues we raised in this article. Too little attempt is made to thoroughly investigate the effects of CL and many other learning methods in educational and cultural contexts other than the West. Non-Western societies and their deeply rooted cultural norms and values are likely to be neglected in the process of method development since Western (read-White) way of doing is likely to be seen as *standard*. Even though there have been a number of studies which warned against the danger of imported educational methods from the West, our study made one step further than just implication and discussion. To the best of our knowledge, this research appears to be the first study which thoroughly analysed the cultural mismatch with respect to CL to the grass root in educational context. In addition, we conducted not a survey or simulation-based but a lesson-based experimental research which was totally integrated with current school curriculum. Besides, we carried the fieldwork not in the Western multicultural school context with international or immigrated students but geographically in the very host culture. Most importantly, we attempted to formulate a series of hypotheses for further studies and a series of practical and concrete instructional principles to be considered in curriculum design or intercultural training programs.

As with most empirical work, whether it be cross-cultural or otherwise, caution is in order before attempting to generalize from the present research. The generalizability of our findings is, of course, limited in several ways. On the method side, we conducted experiments over a rather short period of time. The effect of treatments on longer time-term is therefore unknown. On the sample side, we recruited participant from only two schools in only one Asian CHC country. And these participants were largely restricted to upper-secondary school-age individuals. Thus strong confidence in the extent to which our findings are representative of findings produced from other scales, nations or age-groups must await further research.

References

Aram, I.D. (1993). *Presumed superior: Individualism and American business.* Englewood Cliffs, NJ: Prentice-Hall

Beer, M., Katz, N., (1998) Do incentives work? The perceptions of senior executives from thirty countries. Working Paper. Harvard Business School.

Brodt, S., & Korsgaard, M. A. (2003) "Group Identity and Attachment: Two Paths to Trust and Cooperation in Groups" 16th Annual IACM Conference Melbourne, Australia. (February 2003). Available at SSRN: http://ssrn.com/abstract=402040 or DOI: 10.2139/ssrn.402040

Carnevale, P. J., & Pruitt, D, G. (1992). Social values and social conflicts in creative problem solving and categorization. *Journal of personality and social psychology.* 74. 1300-1309.

Chang, Y.N. (1976). Early Chinese Management thought. *California Management Review,* 19, 71-76.

Chen, C, Chao., Chen Xiao-Ping, Meindl, R, James. (1998). How can cooperation be fostered? The cultural effects of individualism-collectivism. *The academy of management review.* 23(2), 285-304.

Chi-Yue Chiu. (1988) Reward allocation among Chinese high school students in Hong Kong. *The journal of psychology* 129(6) 751-757

Dawes, R.M., Orbell,J.M., & van de Kragt, A.I (1988). Not me or thee but we: The importance of group identity in eliciting cooperation in dilemma situations. *Acta Psychologica,* 68: 83-97

Deutsch, M., (1985). Distributive Justice. Yale University Press, New Haven, CT.

Earley,P.C. & Erez,M. (1993). *Culture, Self-Identity, and Work.* Oxford University Press.

Farh, J.L., Earley, P.C., Lin, S.C. (1997) Impetus for action: a cultural analysis of justice and organizational citizenship behavior in Chinese society. *Administrative Science Quarterly*, 42: 421-444

Griffith, D. A., Hu, M. Y., & Ryans, J. K. (2000) "Process Standardization across Intra- and Inter-Cultural Relationships," *Journal of International Business Studies* (31:2), pp. 303-325

Hofstede, G. (2003). *Cultures and Organization-software of the minds.* London: Profile Books LTD

Hsu, F.L.K. (1985). *American and Chinese: Passage to differences*. Honolulu: University of Hawaii Press

Huff, L., and Kelly, L. "Levels of Organizational trust in Individualistic Versus Collectivist Societies: A Seven-Nation Study," *Organization Science* (14:1), 2003, pp. 81-90.

Hui, C.H. (1988) Measurement of individualism-collectivism. *Journal of Research in personality.* 22:17-36

Hui, C., & Lin, Z. (1996). Regulating collective actions: A case of two cultural systems. Paper presented at the *Research workshop on global organization at Hong Kong university of Science and technology.*

Jackofsky, E.F., Slocum, J.W., Jr., & McQuaid, S.J. (1988). Cultural values and the CEO: Alluring companions? *Academy of Management Executive*, 2(1), 39-49.

Jehn, K., & Weldon, E. (1992). *A comparative study of managerial attitudes toward conflict n the U.S and China: Issues of theory and measurement.* Paper presented at the academy of Management, Las Vegas, NV.

Johnson, D. W., & Johnson, R.T. (1994). Learning together. In S.Sharan (ed.), *Handbook of cooperative learning methods.* Westport, CT: Greenwood Press.

Kagan, S. (1993) *Cooperative learning.* CA:Kagan Cooperative Learning

Kirkbride, P.S., Tang, S.F.Y., Westwood, R.I. (1991). Chinese conflict preferences and negotiating behaviour: cultural and psychological influences. *Organization studies.* 12:365-386.

Komorita, S.S., Chan, K.S.D., & Parks, C.D. (1993) The effects of rewards structure and reciprocity in social dilemmas. *Journal of experimental social psychology,* 29: 252-267

Kramer, R.M., Tyler, T.R. (1996). *Trust in organization.* Thounsand Oarks, CA:Sage

Leung, K. (1997). Negotiation and Reward allocation across cultures. In P.C.Earley & M.Erez (Eds.), *New perspectives on international industrial/organization psychology.* San Fransisco: Jossey-Bass, 640-675.

Leung, K., & Bond, M. H. (1982). How Chinese and Americans reward task-related contributions: A preliminary study. *Psychologia: An International Journal of Psychology in the Orient,* 25: 32-39.

Leung, K., & Bond, M. H. (1984). The impact of cultural collectivism on reward allocation. *Journal of Personality & Social Psychology*, 47: 793-804

Marsh C.J; Willis G. (2005). *Curriclum-alternative approaches ongoing issues*. 3rd edition. New Jersey: Merrill Prentice Hall.

Messier, W.P. (2003). *Traditional Teaching Strategies versus Cooperative Teaching Strategies: Which Can Improve Achievement Scores in Chinese Middle Schools?* Retrieved August 5, from http://web.hku.hk/~cel2004/Proceedings/064-WilliamPMessier.doc

McAllister, D.J. (1995). Affect and cognition-based trust as foundations for interpersonal cooperation in organizations. *Academic of Management Journal,* 38:24-59.

Meeker, B.F., Elliott, G. C. (1996) Reward Allocations, Gender, and Task Performance *Social Psychology Quarterly*, 59(3) 294-301

Neuman, Y. & Bekerman, Z. (2000). Cultural Resources and the Gap between Educational Theory and Practice. *Teachers College Record,* 103 (3), 471-484.

Oetzel, J.G., Ting-Toomey, S. (2003). Face concerns in international conflict: A cross-culture empirical test of the face-negotiation. *Communication Research*. 30 (6), 599-624

Park C. Clara (2005). Who are the Vietnamese-American students?. *Paper presented at the AERA conference, Montreal, Canada, April 11-15, 2005.*

Park, C.C. (2002). Crosscultural differences in learning styles of secondary English learners. *Bilingual Research Journal,* 26(2),213-229.

Pataki, S.P; Shapiro C; & Clark, M. (1994). Children's Acquisition of Appropriate Norms for Friendships and Acquaintances.*Journal of Social and Personal Relationships*, Vol. 11, No. 3, 427-442 (1994)

Peterson, C.C.; Peterson, J.L. (1978). Reward Allocation and Academic versus Social Orientation toward School. Journal of Psychology, v100 p159-63

Phuong-Mai, Nguyen., Terlouw, C & Pilot, A. (2005) Designing instruction for cooperative learning in countries with Confucian Heritage Cultural background. In M. Valcke, K. De Cock, D. Gombeir, & R. Vanderlinde (Eds.), *Meten en onderwijskundig onderzoek*. Gent: Universiteit Gent.

Phuong-Mai, Nguyen., Terlouw, C & Pilot, A. (2006) Culturally appropriate Pedagogy: The case of group learning in a Confucian Heritage Culture's context. *Intercultural Education.* 17(1) 1-19

Pong, W.Y., & Chow. J. (2002). On the pedagogy of examination in HOng Kong. *Teaching and teacher education,* 18, 139-149.

Ronen, S., & Shenkar, O. (1985). Clustering countries on attitudinal dimensions: A review and synthesis. Academy of Management Review, 10, 435-454.

Slavin, R.E (1995). *Cooperative learning.* Needham Heights, MA: Allyn and Bacon.

Slavin, R.E (1990). *Cooperative learning: Theory, research and practice*. Englewood Cliffs, NJ: Prentice Hall.

Sato, C. 1982. Ethnic styles in classroom discourse. In Mary, E.H. & William, R (Eds.). On TESOL '81. Washington, DC: Teachers of English to Speakers of Other Languages.

Reprt Rr 17. Institute of development studies, Brighton, England.

Smith, K.G., Carrol, S.J., & Ashfold, S.J. (1995). Intra-and inter-organizational cooperation: Toward a research agenda. *Academy of Management Journal,* 39:7-23.

Smith, P.B., & Peterson, M.F. (1988). *Leadership, organizations and culture: An event management model.* Beverly Hills, CA: Sage.

Song, B. 1995. What does reading mean for East Asian students? College ESL, 5/2, 35-48.

Thomas, Elwyn. (1997). Developing a culture-sensitive pedagogy: Tackling a problem of melding 'Global culture' within existing cultural context. *International Journal of Educational Development,* 17(1),13-26.

Ting-Toomey, S. (1988). Intercultural conflict styles: A face-negociation theory. In Y.Kim & W.Gudykunst (Eds.), *Theories in intercultural communication* (213-235). Newbury Park, CA: Sage.

Triandis, H.C. (1993). Cross-cultural industrial and organizational psychology. In M. Dunnette & L. Hough (Eds.), *Handbook of Industrial and Organizational Psychology*, 103-172. Palo Alto, CA: Consulting Psychologists Press.

Triandis, H.C. (1996) The psychological measurement of cultural syndromes. *American Psychologist,* 51:407-415

Tjosvold, D., Hui, C & Sun, H. (2004). Can Chinese discuss conflict openly? Field and experimental studies of face dynamics in China. *Group decision and Negotiation,* 13, 351-373.

Tse, D.K., Francis, J., Walls, J. (1994). Cultural differences in conducting intr-and inter-cultural negotiations: a Sino - Canadian comparison. *Journal of international business studies,* 24, 537-555

Tsui, A. (1996) Reticence and anxiety in second language teaching, in: K. Bailey & D. Nunan (Eds), *Voices from the language classroom* (Cambridge, Cambridge University Press), 145–167.

Volet, S. (1999). Learning across cultures: Appropriateness of knowledge transfer. *International Journal of educational research.* 31, 625-643.

Young-Ihm Kwon. (*2002)* Western Influences in Korean Preschool Education *International Education Journal 3(3)*

Witty, G., Power, S., & Halpin, D. (1998). *Devolution and choice in education.* Melbourne: Australian Council for Educational Research.

Zang, Z. (2001) The effects of frequency of social interaction and relationship closeness on reward allocation. *The Journal of Psychology* (135)2 154-164