

Education in the Asia-Pacific Region:  
Issues, Concerns and Prospects 25

Pham Thi Hong Thanh

# Implementing Cross-Culture Pedagogies

Cooperative Learning at Confucian  
Heritage Cultures



ASIA-PACIFIC EDUCATIONAL  
RESEARCH ASSOCIATION



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# Implementing Cross-Culture Pedagogies

# EDUCATION IN THE ASIA-PACIFIC REGION: ISSUES, CONCERNS AND PROSPECTS

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Volume 25

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Pham Thi Hong Thanh

# Implementing Cross-Culture Pedagogies

Cooperative Learning at Confucian Heritage  
Cultures

 Springer

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## Series Editors' Introduction

Several countries in Asia, such as China (including Hong Kong), Malaysia, Singapore, Vietnam, Japan, Thailand and Korea have a Confucian heritage culture (CHC) which underpins and impacts considerably on many aspects of the society concerned, including its education and schooling system. Sometimes Western cooperative learning and student-centred learning have been imported into CHC countries without adequate thought being given to the cultural and philosophical differences between Western and CHC countries. To be successful, Western developed practices need to be imported into CHC countries only after carefully consideration of their appropriateness within the sociocultural context of the CHC countries concerned.

Cooperative learning is a group-centred and student-centred approach to classroom teaching and learning that actively engages the student in the educational process. Under this approach each group member is not only responsible for their own learning and understanding but they also take responsibility for helping other members in their team so that students maximise their own and each others' learning. This is often in contrast to the approach adopted in countries with a Confucian heritage culture where teaching and learning is organised in ways that stress teacher-centeredness.

As the author of this important and insightful book document, in an attempt to improve the quality and effectiveness of their education systems, CHC countries have often borrowed from Western educational philosophies, teaching and learning practices. This has not always worked well since education systems do not exist in isolation to the particular society in which they are embedded, but develop and evolve to meet the needs of a particular society at a certain time. Education systems reflect the political, cultural, social and economic characteristics of the society in which they are located, and so it often does not work well to simply take ideas from elsewhere which may not be compatible with the characteristics of the importing society.

This book examines and discusses various definitions of cooperative learning and the theoretical perspectives underpinning cooperative learning and examines how cooperative learning can work best in CHC classrooms. Cooperative learning

has become a favoured approach in CHC countries, and the book examines why this is the case. It provides an insightful analysis of the current situation and provides guidance on rethinking the importation of educational reforms to CHC classrooms. It goes on to examine educational reforms toward cooperative learning in Confucian heritage culture countries and how cooperative learning reforms in CHC countries can be most effectively implemented and managed. By examining actual experiences in the countries examined in the book, the author is able to effectively identify culturally appropriate strategies to enable CHC teachers promote cooperative learning. Having identified problems in CHC countries with regard to adopting cooperative learning strategies, the author identifies effective strategies to overcome these problems.

The book is important because it provides a theoretical framework and culturally appropriate and practical guidelines which will assist education researchers, policymakers and practitioners optimise success when importing cooperative learning models to classrooms in countries with a Confucian heritage culture.

The book provides an excellent overview of the theoretical perspectives that underpin cooperative learning, examines the claimed and real benefits of cooperative learning and assesses the pros and cons of cooperative learning strategies.

The book is likely to have a wide audience including teachers, teacher educators, education researchers and policymakers with an interest in understanding how to maximise the effectiveness of education systems. The book will also be of interest to members of the general public who are interested in understanding how school systems function and what needs to be done to increase the effectiveness and quality assurance of education and schooling systems.

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May 2013

# Preface

During the last two decades, countries with a Confucian heritage culture (CHC) (e.g. China, Hong Kong, Korea, Malaysia, Singapore, Taiwan and Vietnam) have widely promoted teaching and learning reforms to advance their educational systems. To skip the painfully long research stage, CHC educators have often borrowed Western philosophies and practices with the assumption that what has been done successfully in the West will produce similar outcomes in the East. The wide importation of cooperative learning practices to CHC classrooms recently is an example. However, many studies have documented that cooperative learning has not worked effectively in CHC classrooms. The reason is that cooperative learning was often imposed on CHC teachers and students without a careful consideration of its appropriateness in the sociocultural context of CHC countries. This procedure is not effective and professional because learning is not an independent factor that stands alone. Rather, it is shaped and influenced by other factors including teaching methods, learning tasks, assessment demands, workload and the learning culture of students in the local context. For cooperative learning to work effectively in CHC classrooms, reformers need to consider the importation of this approach in line with a careful examination of all supports and constraints that affect those factors associated with learning.

The main purpose of this book is to provide an applied theoretical framework and culturally appropriate and practical instructions that could assist policymakers, reformers and teachers to address various factors at multiple levels. By doing this, they could optimise success in importing cooperative learning to CHC classrooms. Specifically, the book will:

- Provide a general discussion about cooperative learning, an investigation of how and why CHC nations have been trying to replace teacher-centred instruction with student-centred instruction as occurs when cooperative learning is implemented
- Provide a review of studies on cooperative learning in CHC countries, document mismatches between principles of cooperative learning and the sociocultural context of CHC countries



- Propose culturally appropriate strategies to assist CHC teachers to adjust their teaching to promote cooperative learning and to design the types of assessment tasks that can enhance cooperative learning
- Develop strategies to modify principles of cooperative learning in a manner that is culturally appropriate to CHC students' learning culture
- Propose strategies to assist CHC teachers to overcome structuring barriers when implementing cooperative learning

This book will have a broad target audience including preservice and experienced teachers who are interested in implementing student-centred learning practices both in the West and Asia. It will also be valuable as a reference text in undergraduate and postgraduate courses that focus on teacher training in education. The book will especially have wide appeal to universities and colleges in Asia, especially in CHC countries where the governments and educators are strongly encouraging the importation of student-centredness. This book promises to be a valuable asset at CHC schools and colleges because it provides useful strategies to design student-centred learning practices, particularly cooperative learning, that are culturally and institutionally appropriate in the CHC context. There is now a demand for such a volume because globalisation is ensuring that information on Western teaching and learning practices is readily available in Asia, often with no evidence on its suitability in culturally different contexts. Unfortunately, many Asian educators are adopting Western practices without considering their appropriateness for either the different instructional contexts or the impact of these practices on their students' learning. Guidelines for instructing local teachers in applying appropriate practices provided in the book are extremely useful and practical. In addition, strategies developed in the book can also be applied at education institutions in Western countries, especially in English-speaking countries, to help non-Western students study more effectively. This is important because the number of non-Western students at Western education institutions is increasing. Therefore, many Western colleges are trying to internationalise their curricula to make them more culturally inclusive to students coming from all cultural backgrounds. Discussions about differences in teaching and learning between the West and the East and the development of culturally appropriate strategies in the book promise to provide Western educators with a better understanding about how non-Western students learn. This could then enable them to teach non-Western students more effectively. Finally, the book would also be a valuable professional resource for learning support teachers, counsellors and psychologists who are regularly called upon to assist teachers in developing effective learning techniques that provide for the academic needs of all students.

# Acknowledgements

I have gone through a long journey to complete this book, but I would not have reached this destination without the love, support and encouragement of many people. Therefore, I would like to take this opportunity to express my gratitude to all those who made this book a possibility.

I first would like to express my deepest and sincere thanks to my husband and my daughter. This book would have been impossible to complete without their support and motivation. To my husband, I received his continuous and long-suffering support when he very generously and lovingly exempted me from most household chores and looked after my daughter so that I could work undisturbed on this book. To my daughter, I can only say thousands of times ‘I love you, Dana’. Whenever I look at you, I feel so motivated and strong. You did nothing, but half of this book is your contribution. So my greatest debt incurred is to Lam and Dana. I promise to repay that debt properly – and with lots of interest!

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Finally, I wish to express my gratefulness to the teachers and students in Vietnam who participated in empirical studies reported in this book. Without their support and kindness, I would not have been able to conduct the experiments. Their participation and help is an essential contribution to the value and relevance of this book.

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# Chapter 1

## Introduction and Research Overview

In modern society, people cannot be successful in most workplaces without good communication and collaborative skills (Johnson and Johnson 1994; Kagan 1994; Shaw 1992). The ability to work together cooperatively has become one of the skills which enable people to survive in the global workforce. Several scholars have pointed out that people are often laid off due to a lack of good interpersonal communication skills in the workplace despite their job qualifications (Kagan 1994; Shaw 1992). More and more employers are now looking for people who are able to work in teams as well as communicate with people having different perspectives. Therefore, a strong need has developed for almost all education institutions to train students in communication, cooperation and self-learning skills. Kagan (1994) asserts roles of schools in today's world as below:

At an accelerating rate we move into a rapidly changing information-based, high-technology, and interdependent economy. Along with the traditional role of providing students with basic skills and information, increasingly schools must produce students capable of higher-level thinking skills, communication skills, and social skills. (pp. 1–2)

To respond to these newly emerging requirements, schools worldwide have proposed significant changes, a major aspect of which is clearly seen in the approach to teaching and learning. Traditional views of teaching, with its emphasis on individual achievement and the transmission of information, have been found inadequate in supporting the development of students' thinking and learning skills in today's global society (Harmon 2000). Instead, constructivism, with its views of learning being mediated by the individual's active involvement and participation in situated social practices and not as the result of knowledge transmission, has become a popular theoretical perspective underpinning various recent educational studies. As a result, interest in the sociocultural views of Vygotsky (1978) has brought the issue of social interaction to the centre of recent educational reforms. From this perspective, the understanding of human cognition and learning are seen



as social and cultural rather than an entirely individual phenomenon (Palincsar 1998). Sociocultural theory claims that the mind (our thinking, cognition, consciousness) is co-constructed through interaction with others. When people communicate with each other, they are given more than a chance to develop their cognition. This happens because when people prepare to express their ideas to others, they usually have to clarify their understanding and direct their attention to key points. This compressed process eventually helps them understand better or even produce new ideas. As a result, their cognition is developed to a higher level that is more complex. Lantolf (2000) claims that this is a self-communicative process that guides people's thinking. Moreover, when people share ideas with others, they usually receive feedback from each other. Then, they elaborate or critically reflect on the feedback by asking themselves various questions such as 'Should I agree? Why?' or 'Should I disagree? Why?' In order to answer these questions, they have to obtain more reasonable and logical explanations about their understanding. This source of consciousness residing outside of the head anchored in dialogues is internalised into the mind and helps people develop cognition. As such, social learning contexts promote explanations to others and self-explanations that lead to cognitive gains (Schwartz 1990), and social modes of working create effective learning environments for students to express, discover and construct knowledge (Kumpulainen and Wray 2002).

According to this perspective, teaching and learning are socially negotiated and constructed through interaction. Therefore, the roles of the teacher and students should be defined as communicators and learners. The sociocultural point of view implies that an effective teaching and learning approach in this global era should be the one that can create a situated context in which students have opportunities to exchange information and, in so doing, develop new understandings and learning. Supporting this point, Brookfield and Preskill (1999) emphasise how wonderfully exchanging ideas in discussions could help improve students' cognition as below.

Discussion is one of the best ways to nurture growth because it is premised on the idea that only through collaboration and co-operation with others can we be exposed to new points of view. This exposure increases our understanding and renews our motivation to continue learning. In the process, our democratic instincts are confirmed; by giving the floor to as many different participants as possible, a collective wisdom emerges that would have been impossible for any of the participants to achieve on their own. (p. 4)

These arguments show that cooperative learning is an ideal alternative instructional approach replacing the traditional teacher-centredness because, as Cooper (1999) claims, cooperative learning creates a social context for students to engage in discussions and then assist one another to build their own understanding, integrate new learning into existing cognitive structures and adjust their understandings as needed. Moreover, the process of cooperating may also reveal some aspects of the topic that students do not understand, so that the teacher can scaffold by giving appropriate assistance enabling students to construct their own knowledge. In fact, Newman and Holtzman (1993) note that cooperative learning

overlaps with the sociocultural theory by attempting to build an environment that fosters mutual aid. The authors claim:

Vygotsky's strategy was essentially a cooperative learning strategy. He created heterogeneous groups of children (he called them a collective), providing them not only with the opportunity but the need for cooperation and joint activity by giving them tasks that were beyond the developmental level of some, if not all, of them. (p. 77)

In a very basic sense, cooperative learning is the instructional use of small groups so that students share the responsibility of working together to maximise their own and each other's learning (Johnson et al. 1998). Cooperative learning activities involve groups of two to five students jointly working through the assigned tasks (after receiving instructions from the teacher) until all group members have successfully mastered and completed them. During the learning process, students not only learn to take responsibility for each other's learning by making individual contributions to the learning tasks but also learn to affect a compromise by resolving individual differences for collectively achieving the learning goals. In other words, through cooperative learning activities, students respect and learn from one another as well as learning how to explain the reasons for their opinions. Extensive research has shown that cooperative learning is a more effective instructional method over competitive and individualistic approaches (Johnson et al. 2000). Specifically, cooperative learners have demonstrated higher academic outcomes (Cohen and Lotan 1995; Foley and O'Donnell 2002; Slavin et al. 1996), enhanced critical thinking skills (Brandon and Hollingshead 1999), demonstrated more creative thinking abilities (Johnson et al. 1994) and enhanced social skills such as communication, presentation, problem-solving, leadership, delegation and organisation (Cheng and Warren 2000). Also, cooperative learning helps accelerate students' social-interpersonal development and thereby it helps students solve the teacher's instructional problems as well (Sharan 1980; Slavin 1980).

All of these advantages have made cooperative learning one of the most powerful learning strategies utilised in recent times. In fact, cooperative learning has been recognised as the most successful learning strategy in educational history (Johnson et al. 1994; Slavin 1996). Therefore, it has recently become the first choice of teaching and learning approach reforms in various countries, including CHC countries. The push for importing cooperative learning to CHC classrooms took place since the late twentieth century when almost all CHC nations have changed their economic development modes from closed and centrally controlled economies to open market ones. This happened because market economies, which are characterised by the domination of new fast capitalism where small enterprises and advanced technology emerged as predominant parts of the economy (Renshaw 1998), require employees to have such specific skills as being cooperative and interdependent in order to work in production teams with different people from diverse cultural backgrounds. These newly required skills are beyond the focus of the traditional perception about teaching and learning that sees textbooks and the teacher's knowledge as the primary information sources and mainly requires

students to work independently to quickly complete the tasks assigned by the teacher (Renshaw 1998). Modern global economies require educators to employ new teaching and learning approaches which cannot only help students obtain scientific and cultural knowledge but also provide them with skills to meet the demands of the new society such as logical reasoning, abstract thoughts and creative abilities. In other words, education must train students to become independent thinkers instead of ‘technicians’. With benefits as aforementioned, cooperative learning appears to be the most suitable alternative learning approach at CHC education institutions. Therefore, it is not a surprise to see that more and more CHC education institutions have been trying to call for a shift from the traditional teacher-centredness to cooperative learning and other student-centred learning.

A paradox, however, is although there have been very few studies on cooperative learning in the Asian context, a review of the studies that investigated how cooperative learning worked in Asian countries found evidence that cooperative learning promotes learning is equivocal and, moreover, it is of little interest to Asian teachers and students (Thanh-Pham et al. 2009). The main reason contributing to such an outcome has, generally, been that cooperative learning, both theoretically and practically, conflicts with the culture of Asian countries, especially those inheriting Confucian culture (e.g. Vietnam, China, Malaysia, Hong Kong, Japan, Korea, Singapore and Taiwan). Specifically, many principles of cooperative learning and CHC cultural values have been found not to match with each other. For instance, while cooperative learning principles aim to encourage students to open up their own ideas and develop creativeness, CHC culture does not encourage students to focus on questioning, evaluating and generating knowledge because truth is not found primarily in the self, but in exemplars [teachers] (Confucius 1947). Usually, CHC students need to receive knowledge from teachers as a truth rather than try to think independently and draw their own conclusions (Ladd and Ruby 1999). CHC students are also expected to respect teachers and not to question or contradict what they say. While face-to-face interaction is emphasised as a main component of cooperative learning (Johnson and Johnson 1999), the deep-seated perception of ‘surviving in harmony’ strongly hinders CHC students from exchanging their true opinions (Hofstede and Hofstede 2005).

The issue raised here, therefore, is that instead of attempting to examine whether cooperative learning works in CHC countries, it would be more practical and useful if disjunctions between cooperative learning principles and the sociocultural context of CHC countries are investigated. More importantly, strategies to match these disjunctions need to be determined so that cooperative learning can be culturally adaptive to CHC classrooms. Unfortunately, very little has been known about these disjunctions and there has not been any research developing these strategies. To fill this gap, the main purpose of this book is to examine why and how cooperative learning does not fit in the sociocultural context of CHC countries. Importantly, it reports empirical studies that were conducted by the author in Vietnam during the last 5 years. The main purpose of these empirical studies was to develop strategies to modify cooperative learning principles to make them culturally and institutionally suitable in CHC classrooms. This book uses Vietnam as a case

study that represents other CHC countries. This choice was made because of two main reasons. The first was that the author did not have opportunities to conduct empirical studies in different CHC countries. This is a limitation this book owns and leaves a gap for future research. The second was that although CHC countries may own different cultural values due to their own geographic locations and social and economic developments, generally speaking CHC countries still share main cores of Confucian cultural values. In the case of Vietnam, the country was dominated by China for almost 2000 years (from 111 BC to AD 1858). During this long period, the Vietnamese were deeply embedded with Chinese cultural values, among which Confucian culture was predominant. This explains why in Vietnam the Confucian philosophy is still very much alive and has set a powerful interpersonal norm for daily behaviours, attitudes and practices demanding reflection, modernisation, persistence, humility, obedience to superiors and stoic response to pain (Park 2000). Consequently, Vietnamese students share a common Confucian heritage and can, to a great extent, represent CHC students. Throughout this book when phrases like CHC and Asian students are mentioned, they also imply Vietnamese students.

The book consists of nine chapters.

#### Chapter 1 *Introduction and Research Overview*

This chapter describes the research background and provides an overview of the research.

#### Chapter 2 *Cooperative Learning in Comparison with the Teacher-Centredness*

This chapter discusses various definitions of cooperative learning and three theoretical perspectives underpinning cooperative learning, namely, *the behavioural learning theory*, *the developmental perspective theory* and *the social interdependence theory*. It is emphasised that effective cooperative learning needs to consist of five components of *positive interdependence*, *individual accountability*, *face-to-face promotive interaction*, *interpersonal and small group skills* and *group processing*. The chapter then discusses major benefits that cooperative learners can gain including *academic achievement*, *psychological adjustment* and *quality of relationships*. The main procedures of popularly used cooperative learning strategies are also summarised in this chapter. Finally, the chapter points out differences between cooperative learning and teacher-centredness in terms of the teacher's role, students' role and objectives and instructional strategies.

#### Chapter 3 *Cooperative Learning in CHC Classrooms*

The main focus of this chapter is to investigate how cooperative learning works in CHC classrooms. To provide a background explaining why cooperative learning has become a favoured approach in CHC countries, the chapter first discusses how the globalised knowledge-based economy has driven CHC education institutions to shift from employing teacher-centredness to adopting learner-centredness such as cooperative learning. The chapter then reviews studies that investigated cooperative learning in Asian classrooms. This review aims to shed light on how CHC teachers and students responded to cooperative learning. Importantly, the chapter explores

causes contributing to the failure of cooperative learning in CHC classrooms and investigates why cooperative learning is of little interest to CHC teachers and students. The chapter generalises that the ineffectiveness of cooperative learning in CHC classrooms results from various disjunctions between cooperative learning principles and the sociocultural context of CHC countries.

#### *Chapter 4 An Applied Theoretical Framework to Implement Cooperative Learning in CHC Countries*

This chapter aims to develop an applied theoretical framework to assist reformers to achieve better success in implementing cooperative learning in CHC classrooms. It first discusses the procedures that CHC governments often apply to carry out their learning reforms and points out weaknesses in these procedures. To improve the present situation, the chapter proposes an applied theoretical framework that is central to the Activity Theory. This framework emphasises that learning should be seen as a factor that has connection with many other factors in a complexity. Therefore, to achieve success in cooperative learning reform, reformers should not simply impose the instruction on teachers and students but need to address various factors at different implementation levels. In brief, factors that have an impact on learning (i.e. teaching and assessment) need to change to enhance cooperative learning. Moreover, cooperative learning principles that are in serious conflict with unchangeable or hard-to-change CHC cultural values need to be modified. Finally, there must be techniques to fit cooperative learning activities within the institutional conditions of CHC institutions. The framework especially emphasises that the teacher's and students' voices need to be taken into careful consideration because they play a key role in determining the reformative success.

#### *Chapter 5 Teaching Practices at CHC Education Institutions: A Hidden Challenge and Techniques to Enhance Cooperative Learning*

This chapter aims to discuss teaching practices at CHC education institutions and points out how the traditional teaching teacher-centredness hinders cooperative learning. Relevant literature and findings of empirical studies documented in this chapter disclose that CHC teachers' resistance to empowering students in active learning is the main barrier preventing CHC students from adopting cooperative learning. To improve this situation, there is a need to develop strategies that could enable CHC teachers to delegate part of their authority to students. The chapter then reports an empirical study that was conducted to develop such strategies. The results revealed that when teachers were mandatorily required to implement the reform, they tended to only implement 'artificial' changes (i.e. modify some teaching activities in class, redesign lesson plan) that did not empower students to engage in real cooperative learning. Students were only given a chance to practise proper cooperative learning activities when teachers were convinced about the effectiveness of the reform and especially assisted to change their belief. The study highlighted that CHC teachers' voices need to be taken into careful consideration. Then, culturally appropriate strategies that could assist CHC teachers to make the real change need to be developed.

### Chapter 6 *Assessment at CHC Education Institutions: Problems and Strategies to Enhance Cooperative Learning*

The main focus of this chapter is to discuss the nature of assessment practices at CHC education institutions and how the current assessment system at CHC institutions impacts cooperative learning. Arguments in this chapter point out that to enhance cooperative learning, current assessment practices need to change from well-structured to ill-structured tests. The chapter then reports an empirical study that was conducted by the author to investigate the effects of ill-structured tests on cooperation among students. The findings reported that when students worked on ill-structured tests that aimed to assess students' high-level knowledge and required group efforts to accomplish (i.e. joint project), group members were conditioned to share equal opportunities to talk, make fairer contributions, highly evaluate each other's ideas, enthusiastically support each other by giving help and elaborative explanations, value group benefits more importantly than individual achievements and enjoy working with each other. Importantly, ill-structured tests were also found to increase cooperation among different ability students.

### Chapter 7 *Learning Culture of CHC Students: Its Support and Challenge to Cooperative Learning*

Literature on educational change has warned that students play an important role in determining the success of educational reforms. Whatever reform is worked out, reformers have to remember that the reform should not be in serious conflict with students' learning culture. Therefore, to ensure a highly successful possibility of cooperative learning reforms in CHC classrooms, this chapter aims to investigate disjunctions between cooperative learning principles and CHC students' learning culture. Based on perspectives about cultural change and findings of relevant empirical studies, the chapter argues that to keep CHC students interested in adopting cooperative learning, some cooperative learning principles should be modified to match unchangeable and hard-to-change cultural values of CHC students. The chapter points out three potential disjunctions between cooperative learning principles and CHC students' learning culture including mixed-ability grouping vs. friendship grouping, role-rotating grouping vs. leader-led grouping and intra-peer assessment vs. inter-peer assessment. The chapter finally reports an empirical study that examined Vietnamese students' responses to these mismatches and suggested that in the CHC context the principle of forming mixed-ability groups recommended by cooperative learning researchers should be replaced by friendship groups, the role-rotating grouping concept should change to leader-led grouping and intra-group peer assessment should change to inter-group peer assessment.

### Chapter 8 *Structural Constraints at CHC Education Institutions: Barriers Hindering Cooperative Learning and Strategies to Overcome*

Infrastructural conditions have been claimed to exert a strong impact on learning reform although they appear to have a loose link with classroom teaching and learning. Unfortunately, reformers tend to neglect this impact because they assume that it is impossible to make a change in structural conditions. This misconception

has contributed to the failure of cooperative learning reforms in CHC countries. To shed light on this issue, this chapter discusses the main institutional constraints at CHC colleges that strongly hinder cooperative learning, and then argues that if the constraints are impossible or really hard to change, reformers should have techniques to assist teachers to minimise their impact. The chapter finally reports an empirical study that attempted to develop strategies to assist CHC teachers to deal with three main constraints in Asian classrooms including large-size classes, curriculum coverage and limited reading resources. The findings revealed that when organising cooperative learning in large-size classes, teachers should subdivide each big group into two smaller groups and ask them to teach each other. To overcome the problem of overloaded curriculum, teachers should be selective with lessons taught in class and to enlarge reading resources, students should be encouraged to consult other sources rather than sticking with textbooks.

### Chapter 9 *Conclusion: Reflection and Integration*

This chapter reinforces how CHC governments should reconsider the procedure of importing cloned pedagogies from the West because Western practices are often developed based on cultural values that have many conflicts with Confucian culture. Moreover, infrastructure developments and material resources in CHC countries seem inadequate for the requirements of these advanced practices. To guarantee a better chance for success, reformers should be assisted by an applied theoretical framework that provides them with clear instructions of what needs to be addressed. This book has attempted to develop such a framework based on concepts of the Activity Theory. In brief, the framework conceptualises that to promote cooperative learning and student-centredness in CHC classrooms, there needs to be a change in factors that have influence on CHC students' learning practices and adjustments of cooperative learning principles to fit hard-to-change learning values of CHC students. Besides, strategies that could assist CHC teachers to deal with local institutional constraints need to be developed. The chapter also summarises evidence found in empirical studies reported throughout the book to support the effectiveness and feasibility of this framework. The chapter finally discusses contributions and limitations of the book.

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## Chapter 2

# Cooperative Learning in Comparison with the Teacher-Centredness

*Classrooms in which laughter is welcome help bring learning to life.*

*By Dee Dickinson*

### 2.1 Introduction

Cooperative learning has become a well-documented philosophy of classroom instruction encompassing many strategies. Cooperative learning is difficult to define because different researchers have provided various definitions. For instance, Grineski (1993) defines cooperative learning as students working collectively to achieve the same instructional purpose; all students are held accountable for their contributions and contribute to goal achievement. More simply, Sharan (1994) and Dyson and Harper (2001) argue that cooperative learning is a group-centred and student-centred approach to classroom teaching and learning that actively engages the student in the educational process. Emphasising the role each group member has to perform in cooperative learning groups, Puacharearn and Fisher (2004) and Johnson and Johnson (2001) claim that when working in cooperative learning groups, students are not only responsible for their own learning and understanding of the lesson but they take more responsibility for helping other members in their team so that students can maximise their own and each other's learning. Murdoch and Wilson (2004) emphasise that cooperative learning is not a case of students sitting at one table talking about their individual work, nor is cooperative learning a case of sharing materials for individual work or a case of only one or two students doing all the work. Slavin (1995) provides a more general definition that says

cooperative learning refers to a variety of teaching methods in which students work in small groups to help one another accomplish shared goals; in cooperative classrooms, students are expected to help each other, discuss and debate with each other, assess each other's current knowledge, and fill any gaps in each other's understanding. Noticeably, cooperative learning often replaces individual seatwork, individual study, and individual practice but not direct instruction by the teacher. To provide better understanding about cooperative learning, this chapter will briefly discuss theoretical perspectives underpinning cooperative learning and main benefits of cooperative learning, procedures of popularly used cooperative learning strategies and clarify differences between cooperative learning and teacher-centred learning practices.

## **2.2 Theoretical Perspectives Underpinning Cooperative Learning**

To date, various cooperative learning strategies have been developed based on different theoretical perspectives. There are at least three main theoretical perspectives which underpin popular cooperative learning strategies. These perspectives are behavioural, developmental and social interdependence.

### ***2.2.1 Behavioural Learning Theory***

This theory is grounded in the stimulus–response work of Skinner (1971) and Bandura (1977) on social cognition. This perspective claims that the learning process begins when the stimulus or environment impacts on students, and then students construct their knowledge and display what they learn via overt behaviour. The stimulus or environment entirely controls learning, so the instructors can only control learning if they control the stimuli. Based on this connection, behaviourists argue that to encourage students to express overt behaviour toward cooperative learning, there must be extrinsic rewards like cooperative goal structures or cooperative incentive structures (Skinner 1968). These structures create a situation in which the only way group members can achieve their goals is if the whole group is successful. Therefore, group members must both help and encourage each other to succeed (Slavin 1983a, b, 1995). For example, when an interpersonal reward structure is created, group members will use social reinforcers (i.e. praise, encouragement) to encourage each other to exert maximum efforts so that they all obtain the highest sum of their individual performances. Theorists who follow this perspective often try to incorporate group rewards into their cooperative learning methods.

### 2.2.2 *Developmental Perspective*

The *developmental perspective* is seen as an integration of Piagetian and Vygotskian perspectives. Its fundamental assumption about cooperative learning is that intrinsic, but not extrinsic, rewards are an important component creating cooperative learning. Therefore, interaction among students around appropriate tasks is crucial in increasing their mastery of critical concepts (Slavin 1995). For example, the Piagetian perspective explains that learning is most promoted when students discuss different views and solve conflicts in groups. When students are put in such a situation, they face disequilibrium in knowledge, so try their best to convince each other to achieve consensus. This process brings them to a new level of understanding. Hatano and Inagaki (1998) strongly support this perspective. They maintain that students will learn from one another because in their discussion of the content, cognitive conflicts will arise, inadequate reasoning will be uncovered, disequilibrium will occur, and higher-quality understandings will emerge. Vygotsky provides another reason explaining why interactions with peers could improve students' cognition significantly that is the role of language. Vygotsky emphasises that using language to communicate, especially with more capable students, could help develop students' cognition because language, first, helps the speaker develop his or her own cognition as his or her utterances play a role in directing his or her thinking; and second, helps the speaker retain the information being explained and make the ideas his or her own when he or she uses the language to elaborate the material to others. Therefore, Vygotsky maintains that people obtain a better understanding via exploratory, elaborated and reflective speech than via assertive statements. Researchers who follow this perspective, in general, argue that the effects of cooperative learning on achievement would be largely due to the use of cooperative tasks where students have the opportunity to discuss, argue, present and hear one another's viewpoints.

The discussion above has pointed out that cognitive and behavioural learning theories disagree on how learning takes place because behavioural theorists assume that cooperative efforts are generated by extrinsic motivation to achieve rewards while developmental theorists focus on what happens within the individual (Johnson and Johnson 1999). In other words, as Merriam and Caffarella (1991) comment, the major difference between the behavioural and the developmental theorists is the locus of control over the learning activity. For developmental theorists, it lies with the learner, whereas with behaviourists, it lies with the environment. Slavin (1996) argues that these alternative perspectives may be seen as complementary, not contradictory. For example, instead of arguing that the developmental theories are unnecessary, behaviourists would see that motivation drives cognitive process, which, in turn, produces better understanding.

### 2.2.3 *Social Interdependence Theory*

It was not until the middle of the twentieth century that the *social interdependence theory* was proposed by Johnson and Johnson (1975). This theory helps explain not only why cooperative learning can promote human cognition but also provides techniques to help students cooperate effectively. The theory is based on the contributions of a number of researchers such as Koffka (1935) with the theory of dynamic wholes and Deutch (1949) with the theory of competition and cooperation. Others who have contributed to this theory are Slavin (1983a, 1983b, 1995), who conducted a series of studies on how to increase interdependence among students, and especially Johnson and Johnson (1975), who are considered the most well-known proponents of cooperative learning (Good and Brophy 2000; Natası and Clements 1991; Stipek 2002). Basically, various researchers have agreed that social interdependence exists when individuals share common goals and each individual's outcomes are affected by the actions of others (Deutsch 1949). Deutsch (1949, 1962) recognises social interdependence as being one of the most fundamental and ubiquitous aspects of being a human being, which affects all aspects of our lives. He also conceptualises three types of social interdependence: positive, negative and none. Positive interdependence encourages interaction where individuals work together, promoting each other's successes toward a common goal (promotive interaction). Negative interdependence results in individuals obstructing each other's efforts to achieve (oppositional interaction) and no interaction exists when individuals work independently. These different types of interactions lead to different outcomes. Johnson and Johnson (1975) further identify an extension of this theory with a focus on relationships among diverse individuals and found that cooperative learning only works effectively if it combines five essential elements known as positive interdependence, individual accountability, face-to-face promotive interaction, interpersonal and small group skills and group processing. Thus, to implement cooperative learning successfully, according to this model instructors must understand and follow these components.

- (a) *Positive interdependence*. This means all members of a learning group need to contribute to each other's learning. The whole group needs to recognise that their goals can only be attained when the goals of all members in the group are also attained (Johnson et al. 1993). Consequently, in order to reach their common goal, every member needs to learn the materials and help other members to understand the materials too. Students learn that 'they sink or swim together' (Johnson et al. 1990: 11) and they must complete their assigned work if the group wants to attain its goal (Gillies 2007).
- (b) *Individual accountability*. This condition emphasises that although learning activities rely on cooperative efforts, individuals are ultimately responsible for their own learning and cannot 'coast' on group achievement (Cottell and Mills 1992). If individual accountability is not assessed regularly, 'social loafing' may occur, meaning only some members of the group are actually working on the task; the rest of the group contribute a little effort without being noticed (Latane et al. 1979). Consequently, Manning and Lucking (1991) claim

that it is important to assess the group according to the individual learning of each member so as to structure individual accountability for maximum effect of cooperative learning. To encourage group members to contribute to the group, group members should recognise and acknowledge each other's contributions. This would help each member enhance their sense of self-efficacy and they are motivated to continue to work for the group's success (Gillies 2007).

- (c) *Face-to-face promotive interaction*. This practice must take place so that students can engage in verbal interchanges such as talking aloud and challenging one another's points of view. When students participate in face-to-face discussions, they understand they must actively encourage each other's equal participation in the joint talk (Gillies 2007). Participating in face-to-face interactions gives students a good opportunity to develop their social skills like listening to others, selecting and controlling what they say and mastering their presenting skills. In addition, Gillies (2007) further claims that engaging in verbal interactions also gives students the capacity to read both the verbal and nonverbal body language that are critical to building personal connections among group members.
- (d) *Interpersonal and small group skills*. To work in a group effectively, each group member needs to be taught how to communicate effectively with each other. This would help them present their ideas clearly, recognise each other's contributions correctly and constructively, manage conflicts among group members effectively and engage in democratic decision making. These skills are very important since they help reduce interpersonal conflicts and facilitate interaction, so promote learning (Cohen 1994a). Students need to be taught these skills if the group wants to succeed. Simply placing unskilled students into a group does not help them communicate more effectively (Gillies 2007).
- (e) *Group processing*. This process is a type of formative assessment that involves group members in assessing the processes of their learning (Gillies 2007). To achieve productive joint group work, group members need to regularly evaluate how they are managing their group including what has been done and what they will need to do to accomplish their goal. When students are involved in this process, they have a chance to keep an eye on clarifying and improving the effectiveness of members' contributions so that each member understands how they are performing. This helps enhance the group's functioning and gives each other an opportunity to improve interpersonal and group skills.

When groups are established and consist of these five elements, Gillies and Ashman (1998) claim that the groups are referred to as being *structured*; in contrast, if these five components are not evident or have been only partially implemented, the groups are regarded as *unstructured*. Gillies (2007) and Johnson and Johnson (2002) argue that this distinction is very important because various researchers have found that students working in *structured* groups help each other gain academic achievement and improve other social skills better than those working in *unstructured* groups. This sends a message that when establishing cooperative learning groups, teachers need to manage students to perform these five essential components.

## 2.3 Benefits of Cooperative Learning

Cooperative learning has been found to better promote students' learning and social relations rather than the more traditional whole-class methods of teaching (Cohen 1994b; Johnson and Johnson 1989; Slavin 1995; Veenman et al. 2000). Many studies found that cooperative learning benefits all students' ability (Felder and Brent 1994) and impacts on both teachers and students (Sapon-Shevin et al. 2002). Furthermore, cooperative learning is beneficial not only for young children with intellectual disabilities but also for those without intellectual disabilities (Slavin 1995). The sections below will discuss three main benefits cooperative learners can get including academic achievement, psychological adjustments and quality of relationships.

### 2.3.1 *Academic Achievement*

Cooperative learning has been proven to create an atmosphere of academic achievement and to be effective in classroom environments (Johnson and Johnson 1993). Education research has emphasised that when students are actively involved in cooperative activities, they tend to learn best and more of what is taught, retain it longer than conventional teaching, appear more satisfied with their classes and improve project quality and performance (Cohen and Lotan 1995; Dillenbourg 1999; Foley and O'Donnell 2002; Gross Davis 1993; Soliman and Okba 2006). Johnson et al. (1998) claim that cooperative learning can promote meta cognitive thought, willingness to take on difficult tasks, persistence (despite difficulties) in working toward goal accomplishment, intrinsic motivation and greater time on task. These gains result from learning activities in cooperative groups where students have more than a chance to develop their knowledge via discussing with, challenging, scaffolding each other and gauging each other's knowledge. These activities make a great contribution to improving their critical thinking, creative problem-solving, synthesis of knowledge and academic achievement.

Specifically, Johnson et al. (1981) reported the results of a meta-analysis of 122 studies. Although these studies consisted of many variables, such as different settings, grade levels, subjects taught, gender, grouping strategies, type of cooperative structures used and ability levels of the students, the overall findings were that cooperation was more effective than competition or individualised instruction in terms of increasing students' knowledge acquisition, retention, accuracy and creativity in problem-solving. These effects have been found in a variety of tasks such as reading, writing, mathematics and sport activities. Sharan (1980) also reviewed a number of research studies which used different methods for conducting cooperative small-group learning in the classroom and concluded that the results did support small cooperative groups versus traditional classrooms for higher academic achievement. However, Sharan noted that there were inconsistent results across

groups and measures. Therefore, he suggested the need for further research in determining which particular methods were especially superior in promoting academic gains and how cooperative methods foster higher-order thinking skills.

Later researchers put more effort into examining how cooperative learning could increase students' academic achievements the best. In a review of the studies related to grouping and academic achievement, Slavin (1988) found that the effectiveness of cooperative learning depended on how it was organised. For instance, Slavin discovered a condition that consistently increased elementary school student achievement was when students were rewarded based on the individual learning of each group member. Later, Webb (1991) further found that the kinds of verbal interactions which occurred among students working together determined the effectiveness of cooperative learning practices. In detail, Webb stated that in cooperative learning groups, students need to be instructed to give each other content-related elaborate explanations because only this kind of explanation is positively correlated with higher achievement; if students receive non-responsive feedback, such as the answer to a problem without an explanation, this type of language does not help increase students' cognition. However, Webb's review was only limited to studies on mathematics.

### ***2.3.2 Psychological Adjustment***

It has been claimed that one of the most important psychological characteristics that help students increase their academic performance is self-esteem. In brief, self-esteem is understood as a by-product of doing well and being successful. Several studies have found that cooperative learning helps increase students' self-esteem (El-Anzi 2005; Killen 2007; Legum and Hoare 2004; Slavin 1990). More specifically, Slavin (1995) and Seligman (1995) found evidence showing that students who learn cooperatively tend to be more highly motivated to learn, more likely to develop self-esteem and optimism and feel more positive about themselves than students in traditional classes. Moreover, when compared to students studying with other instructions, Johnson et al. (1998) noticed that members of cooperative groups become more socially skilled than did students working competitively or individualistically. According to Killen (2007) and Seligman (1995), all members in cooperative learning groups could achieve these benefits because cooperative learning gives all ability-level students successful experiences.

### ***2.3.3 Quality of Relationships***

Cooperative learning has also been found to have positive effects on students' social relations. In detail, Johnson et al. (1998) found that cooperative effort promotes greater liking among students than does competing with others or working on one's own. This impact was found between students from different ethnic,

cultural, language, social class, ability and gender groups. Johnson and Johnson (1979) state that learning how to build and maintain positive relationships with other people is the single most important goal of schooling because positive peer relationships have significant impacts on a wide range of other variables. For instance, the more positive the relationships among students are, the more likely students try to achieve the group goal, feel personally responsible for learning, be willing to endure pain and frustration on behalf of learning, listen to classmates and teachers and have high morale (Johnson and Johnson 1997). Johnson et al. (1998) further add that the positive relationships among students increase the quality of social adjustments to their life such as reducing uncertainty, increasing commitment to stay in college and heightening social membership in college. Still, in a study conducted in 2007, Harvey obtained evidence showing that when students developed and remained in good relationships with each other, they tended to have positive feelings toward school. Interestingly, Felder and Brent (1994) and Piercy et al. (2002) found positive peer relationships could promote collaboration among different ability students and among intellectual disabilities and abilities.

Needless to say, academic achievement, psychological adjustment and quality of relationships are important issues in education. Johnson et al. (1998) believe that cooperative learning is able to work on these three fronts simultaneously and, because of that, it places itself above all other instructional methods and becomes one of the most powerful learning strategies utilised in recent times. In fact, cooperative learning has been recognised as one of the most valuable tools that educators have (Johnson and Johnson 2000; Slavin 1996). It is, therefore, not a surprise to see that cooperative learning has recently become the first choice of teaching and learning approach reforms in various countries. Explaining the increasing popularity of cooperative learning, Slavin (1995) summarises that there are at least two main reasons why cooperative learning is entering the mainstream of education practice. The first reason is there has been a host of research supporting the use of cooperative learning to increase student achievement, as well as other outcomes such as improved intergroup relations, acceptance of academically handicapped classmates and increased self-esteem. The second reason is that cooperative learning is an excellent means to enable students to learn to think, to solve problems, and to integrate and apply knowledge and skills.

## 2.4 Cooperative Learning Strategies

Research on specific applications of cooperative learning to the classroom began in the early 1970s (Slavin 1990). Since then, researchers have developed and researched cooperative learning models for different age levels and different subjects. At present, many cooperative learning models have been designed. Each model has a structure which is the procedure with detailed steps. To provide an overall view about these models, Table 2.1 will systematically summarise important information of the most extensively researched and widely used models.



**Table 2.1** Cooperative learning strategies – an overview of the most widely used strategies

Strategies	Researchers	Year	Subjects	Description	Level
Student Teams Achievement Divisions (STAD)	Slavin and associates	Late 1970s	All subjects	One of the simplest and most widely used of all cooperative learning methods Include four main steps: (1) the teacher presents the lesson; (2) students work in mixed-ability teams of 4 or 5; (3) students do individual quizzes; and (4) team scores are made based on team members' improvement scores	All levels
Team Games Tournaments (TGT)	DeVries and Slavin	Early 1970s	All subjects	Have the same dynamics as STAD, but add a dimension of excitement contributed by the use of games	All levels
Team Assisted Individualization	Slavin, Leavey and Madden	1986	Maths	Share with STAD the use of team assigning but combine cooperative learning with individualised instruction	Grades 3–6
Cooperative Integrated Reading and Composition (CIRC)	Slavin and associates	1987	Reading and writing	Students work in teams composed of pairs of students from different groups Team rewards are certificates given to teams based on the average performance of all team members	Upper elementary grades
Learning Together (LT)	Johnson and Johnson	1986	All subjects	Emphasise face-to-face interaction, positive interdependence, individual accountability and interpersonal and small-group skills	All levels
Group Investigation	Sharan and Sharan	1976	All subjects	It includes main steps: (1) Each group conducts investigation; (2) All members prepare a final report; (3) Group members take turn (or appoint representative) to present it in front of the class; and (4) The teacher and other groups evaluate the report	All levels
Jigsaw and Jigsaw II	Aronson, Slavin	1978	Social subjects	Students work in small groups. Those who have the same topic are grouped in 'expert group' then each member in the 'expert group' returns to their original group to teach others	All levels

For each model, it provides information about the researcher(s) who developed the model, the year when the model was developed, the subjects the model is often used for, the main procedures educators should follow when using the model, and the schooling levels where the model is often applied at.

Table 2.1 demonstrates what Davidson and Worsham (1992) argue: there is so far no single universal model of cooperative learning. However, all cooperative learning models share two main characteristics. First, they all have four main attributes of small group learning: cooperative tasks, common outcomes, mutual interdependence and individual accountability. Second, they all try to involve activities which encourage learners to be responsible for their own and their partner's learning, allow learners to regulate their own activities in the classroom, decentralise the decision making power of teachers and empower learners' decision making.

## 2.5 Differences Between Cooperative Learning and Teacher-Centredness

Since cooperative learning is underpinned by radical theories and perspectives which are different from traditional views of teacher-centred learning, if designed properly a cooperative class very much differs from a traditional teacher-centred class. Tables 2.2, 2.3 and 2.4 highlight the key differences between these two learning strategies in terms of the teacher's role, students' role and objectives and instructional strategies.

Tables 2.2, 2.3 and 2.4 show a lot of different, even opposite, points between cooperative learning and teacher-centeredness. Although many studies have demonstrated that these radical components have made cooperative learning more powerful than traditional learning (Astin 1993), a noticeable point here is that an effective class should not totally replace the traditional role of the teacher by uncontrolled activities of students. This is an important warning because the lack of the teacher's assistance strongly affects students' academic achievement in group-learning settings (Webb 1989). The literature has documented many studies that found that teachers' instruction still plays an important role in the success of cooperative classrooms and in achieving diverse gains in cooperative learning (Good et al. 1990; Kagan 1990; O'Donnell 1996; Robertson et al. 1990). Meloth and Barbe (1992), for instance, examined learning of 180 peer groups and found that 80 % of unsuccessful group efforts came from unhelpful monitoring statements of the teachers. From these arguments, it is suggested that an ideal learning model should include an appropriate balance of both the teacher's lecturing and students' group work. This is why many college and university faculties have used cooperative learning techniques only from 15 % to 40 % of the total class time (Cooper 1990).

**Table 2.2** Students’ role in cooperative learning and teacher-centred learning classrooms

In cooperative learning classroom	In teacher-centred learning classroom
Positive interdependence exists among group members. Each member’s contributions are indispensable with each member having a unique contribution to make to help the group achieve its goal (Johnson et al. 1990). Students learn that ‘they sink and swim together’ (Johnson et al. 1990: 11)	Low interdependence exists. Students take responsibility only for themselves (Smith and Waller 1997)
Individual accountability is required. Students understand that they are held accountable for their individual contributions to the group and free loading will not be tolerated (Gillies 2007)	No individual accountability
Students share leadership. Group members are assigned different roles as group leader, recorder, secretary, summariser, reflector, timekeeper, reporter and elaborator	When groups are formed, one member is appointed as a group leader who is responsible for leading and managing all activities of the group
Group members are responsible for each other Task and maintenance are emphasised	Each group member is responsible only for self Only task is emphasised No group process exists
Interpersonal and small-group skills are employed. Students need to be taught how to communicate effectively with each other so they know how to express their ideas, acknowledge the contributions of others, deal with disagreement, manage conflicts, share resources fairly, take turns and engage in democratic decision making (Gillies 2007)	Social skills are assumed and ignored. Students often use individual and competitive skills
Each group member is actively involved in one’s own learning and in learning processes of peers	Students passively receive information and instruction from the teacher. Individuality and uniqueness are relatively unimportant, so individual interpretations of content are relatively unimportant and discouraged

## 2.6 Chapter Summary

- There are various definitions of cooperative learning. In brief, cooperative learning is referred to as teaching practices in which students are required to work in small groups, help each other, discuss and debate with each other and assess each other’s current knowledge to accomplish the shared goal.
- Noticeably, cooperative learning is an alternative approach in place of individual learning practices but not the teacher’s direct instruction.
- Cooperative learning is underpinned by three main theories including *the behavioural learning theory, the developmental theory and the social interdependence theory*.

**Table 2.3** The teacher’s role in cooperative learning and teacher-centred learning classrooms

In cooperative learning classroom	In teacher-centred learning classroom
Structure the existing curricula cooperatively and construct the cooperative learning lessons to meet the students’ (and subject’s) unique requirements (Johnson and Johnson 2004)	Follow the course profile designed by the teacher or the school; structure learning tasks; establish the time and method for task completion; state, explain and model the lesson objectives and actively maintain student on-task involvement
Train students with cooperative skills so that students know how to interact effectively (Tang 1996)	Focus on drills and practices as well as memory and review of knowledge and ignore team-work skills.
Arrange the classroom in small groups and assign roles to group members	Try to keep students in their own seats and keep the classroom quietly with little interaction between the teacher and students (Ladd and Ruby 1999). Students are expected to learn through memorisation but not discussion and argument
Monitor the cooperative learning process by constantly observing the groups, listening to students to see how they understand the topic and instructions, detecting students’ major concepts and strategies, playing more sophisticated instructional role like asking higher-order questions and extending the group’s thinking on its activities (Johnson and Johnson 1994)	Ignore group functioning and emphasise the end product rather than the process, respond to students through direct, right/wrong feedback, use prompts and cues and if necessary provide correct answers and ask primarily direct, recall-recognition questions and few inferential questions
Being ‘the guide on the side’ and play the role as a facilitator of learning because teachers are not privy to small details of students’ discussion, so it is necessary to refrain from micro managing the classroom (Lotan 2004)	Being an expert in the field of study and seen as the definitive source of knowledge
Trust the learning process conducted by the students and let students work things out by themselves (Lotan 2004)	Being ‘the sage on the stage’ and provide detailed instruction. The teacher is the final authority and transmitter of information/ authoritarianism (Ladd and Ruby 1999)
Assess students’ contributions to his or her group	None or little
Provide feedback to groups and analyse group effectiveness	None

- Effective cooperative learning needs to consist of five components: *positive interdependence, individual accountability, face-to-face promotive interaction, group processing, and interpersonal and small group skills.*
- Cooperative learning benefits learners in different ways among which three main benefits are *academic achievement, psychological adjustment and positive relationships.*
- To date, various cooperative learning models have been developed. Each model is characterised by particular procedures, applied to particular subjects and used at particular schooling levels. Popular models are *Student Teams Achievement*

**Table 2.4** Objectives and instructional strategies in cooperative learning and teacher-centred learning classrooms

Cooperative learning versus teacher-centred learning (objectives and instructional strategies)	Instructional strategies	
	Cooperative learning	Traditional teacher-centred learning
Mastery of course subject matter	Students study individually before or after the class, and then study in groups in class	The teacher lectures, and then students study individually or join in group discussion
Evaluate students' abilities and skills	Students are evaluated via in-class group/teamwork and individual exams	Students are evaluated via individual exams/projects and group presentations
Learning strategies	Students are trained with active learning and multiple learning strategies	Students mostly use passive learning skills and are reinforced dependent learning skills
Activities to interest students	The teacher creates interesting, relevant and challenging assignments	Lessons are well organised
	Students receive immediate feedback from the teacher and peers	The teacher delivers content with enthusiasm and lectures are supported by high-quality visuals
	Students can develop friendship and social skills in their group	
Goals	Cognitive, affective and social domains are emphasised	Mainly only cognitive domain is focused
Classroom interaction	Students-students; students-teacher; students-materials	Students-teacher; students-materials

*Divisions (STAD), group investigation, Learning Together (LT), Team Games Tournaments (TGT) and Jigsaw and Jigsaw II.*

- Students' roles in cooperative learning classes very much differ to those in teacher-centred learning classes (i.e. interdependence vs. low/no interdependence, responsible for group vs. responsible for self, high individual accountability vs. no individual accountability, shared group leadership vs. permanent group leader, group processing vs. no group processing, interpersonal skills vs. no interpersonal skills, actively learn from the teacher and with peers vs. passively learn mainly from the teacher).
- The teacher's roles in cooperative learning classes are characterised very differently with those in teacher-centred learning classes (i.e. flexibly structure lessons to prioritise group work vs. strictly follow the course profile prepared

beforehand, train students with soft skills vs. undervalue teamwork skills, develop students' high-level knowledge and extend textbook-focused activities vs. mainly focus on transferring textbook knowledge and emphasise memorised knowledge, monitor the cooperative learning process vs. emphasise the end products, act as a learning facilitator vs. act as the unique knowledge provider).

- Objectives and instructional strategies in cooperative learning classes also differ to those in teacher-centred learning classes in terms of course mastery (individual learning outside the class + group learning in class vs. the teacher's lecturing + individual learning), evaluation (individual and group exams vs. individual exams), learning strategies (active + multiple vs. passive + dependent), activities to interest students (challenging tasks + friendship vs. well-organised lesson + interesting lecturing), goals (cognitive + affective + social domains vs. only cognitive domains), and classroom interactions (emphasising students-students vs. emphasising students-teacher).

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# Chapter 3

## Cooperative Learning in CHC Countries

### 3.1 Introduction

Education often needs to change to respond to the requirements of the economy. Historically, different models of learning are selected and emphasised at certain times owing to the requirements of the labour market. In the paper '*Community of practice classrooms and the new capitalism: alignment or resistance*', Renshaw (1998) discussed how models of learning have changed during the last century. In detail, he argued that from mid-1880s to the middle decades of the twentieth century when the world of work was characterised by authority regimes, the hierarchical learning model underpinned by the behaviourist learning theory became prominent inside classrooms. Teachers acted as surrogate managers and bosses who required students to work independently to quickly complete the teacher's requirements. However, since the late twentieth century when the world of work has been characterised by the domination of the rapid growth of capitalism, where small enterprises and advanced technology emerged as predominant parts of the economy, workers are required to be adaptive, flexible, innovative, cooperative, interdependent and motivated to learn in order to work in production teams, the sociocultural theory has been widely adopted. Since then, education institutes worldwide have tried to reform teaching and learning practices to ensure that graduates are provided with these newly required skills, knowledge and dispositions.

In CHC nations, the push for reform has become stronger because Confucius' teachings that learners should depend on memory, study dependently and reproduce the teacher's words without questioning or challenging are failing to produce workers who have the ability to deal with today's knowledge-based economies. Governments of these countries believe that more up-to-date teaching and learning methods will give them a competitive advantage and eventually lead to greater economic success and more political control (Thomas 1997). For this reason, during the last two decades educators in CHC countries have been very actively utilising educational advances developed in the West like constructivism, autonomous

learning, active learning and student-centred learning (i.e. discussion, group work, role-playing, experiential learning, problem-based learning and cooperative learning) to name a few, as a short cut to quickly modernise their education systems. However, the effectiveness of cooperative learning in CHC classrooms is questioned because a number of studies have found that cooperative learning does not work effectively in CHC countries as much as it often does in Western classrooms. To shed more light on this issue, this chapter will discuss how CHC countries have implemented their educational reforms to adopt cooperative learning and other learner-centred approaches. In addition, the chapter will also review studies on cooperative learning in CHC classrooms and critically discuss reasons contributing to the ineffectiveness of cooperative learning in CHC classrooms.

## **3.2 Educational Reforms Toward Cooperative Learning in CHC Countries**

### ***3.2.1 Hong Kong***

Hong Kong enjoyed a sustained period of economic growth and prosperity during the 1980s and 1990s and has been emerging as one of the most prosperous cities and biggest business hubs in Asia despite its limited natural resources. It has been widely claimed that the British-built elite education system made a great contribution to Hong Kong's economic development (Ng 2009). However, the economic crisis in the late 1990s caused serious economic and social problems in Hong Kong including a high unemployment rate, economic down-turn and a huge budgetary deficit. This situation undermined the belief that the existing education system would be ineffective in producing a labour force ready for the economic challenges brought about by globalisation (Ng 2009). Therefore, Hong Kong undertook an overhaul of the educational system in 1999 as a way to respond to the economic difficulties and prepare the country for new economic and political challenges in the twenty-first century. This is necessary because the Hong Kong Education Commission emphasises:

Education nurtures talents for the society and promotes its prosperity and progress. In an ever-changing society, it is imperative that our education system keeps pace with the times and be responsive to the needs of learners. To design an education system for the future, we must envision future changes in the society in order to cater for the needs of learners in the new society and to define the role and functions of education in the new environment (Hong Kong Education Commission, 2000, cited in Ng 2009: 7).

Since 2001 curriculum at all schooling levels in Hong Kong have been revised many times with an aim at equipping students with new skills so that they could respond to complex requirements of today's labour market. The Curriculum Development Council has advised that today's pedagogies need to enable the learners to develop interpersonal and communication skills. Therefore, schools need to create a

discussion atmosphere and emphasise processing and thinking skills in all subjects. Cooperative learning approaches are encouraged in class because these methods enable students to complement each other's ideas and defend their own points of view. These activities will develop students' critical thinking and argumentative skills, sense of respecting others and appreciating others' ideas. In addition, the current curriculum reform demands the development of collaborative generic skills as well as cultivating students' various social core values (i.e. interdependence, equality among classmates, attaining common and team goals), social sustaining values (i.e. plurality of classmates, equal opportunities to speak and excel, responsibility for helping one another and team spirit) and attitudes (i.e. participation in group learning, caring for teammates' learning and success, and cooperativeness in learning) (Education Department 1994). In fact, the new curriculum did not aim to enable students to acquire skills of a specific subject but provide students with generic skills that will enable them to adapt to a changing work environment. This opinion has been raised repeatedly in various examiners' reports of public examinations for a number of years (Hong Kong Examination and Assessment Authority 2003a, b, c, 2004a, b, c, d).

The Curriculum Development Council emphasises that traditional teacher-centred learning practices have become ineffective in terms of providing students with necessary knowledge and skills to succeed on many international tests (Leung et al. 2002). Therefore, a change in learning and teaching practices needs to be carried out to promote students' active learning via class discussions and students' expression of ideas and feelings instead of listening to teachers lecture most of the time (Cheng 2003b). The ideal alternative learning activity to teacher-centred lecturing method, according to the Curriculum Development Council, is cooperative learning practices since they help to remove the feeling of failure and provide the emotional basis to boost motivation and learning. Cooperative learning could also enable students to attain life-wide and lifelong learning by moving students from being recipients of knowledge to seeing the relationships between ideas, applying ideas, and ultimately thinking critically and creatively and constructing knowledge (Law 2005). To boost the implementation of cooperative learning in classrooms, in 2000 the Hong Kong Government even established the Centre for Learning Enhancement and Research to host several training programmes to enable teachers to employ cooperative learning in their classroom as quickly and largely as possible.

### **3.2.2 Malaysia**

In Malaysia, the Department of Education has undertaken curriculum reform with the goal of improving student learning to meet the more complex demands of Malaysian society amidst globalisation. One of the key reform themes is to use creative and innovative teaching approaches to improve student learning. The reform emphasises that the learner should be considered as 'an active maker of meaning' and 'active constructors of knowledge' (Curriculum Development Centre 1999: 9). The new

curriculum also redefines the elements of the teaching-learning processes in ways that align with the constructivist and other post-behaviourist and post-structuralist approaches to education to advocate stronger interactions among students, teachers, instructional materials, and learning technologies. In 2001, the Curriculum Development Centre (2001a) published and disseminated a guidebook on 'Learning by means of constructivism' to all schools to provide teachers with exemplary constructivist lessons. Malaysia also established 91 constructivist-oriented schools known as the Malaysia Smart Schools in 1997 (Ismail and Alexander 2005). This project emphasises the replacement of the traditional teacher-centeredness by learner-centeredness like cooperative learning. In more specifically educational terms, such a school aims to provide experience that:

... stimulates thinking, creativity, and caring in all students; caters to individual abilities and learning styles; and is based on more equitable access. It will require students to exercise greater responsibility for their own learning, while seeking more active participation by parents and the wider community. (Smart School Project Team 1997: 9)

The revised curriculum for the primary and secondary schools also specified that among student-centred learning practices, cooperative learning is an ideal alternative instruction to the traditional teacher-centred approach (Kementerian Pendidikan Malaysia 2001).

### 3.2.3 *China*

During the past decade and a half, the People's Republic of China (PRC) is undergoing massive economic, cultural, social and political changes in its quest to be one of the key players in the global economy of the twenty-first century (Cheung and Kwok 2001; Hoskins et al. 2001; Zhu 1997). Similarly, education has changed as rapidly as its politics, economy, culture and society. The forces of globalisation, modernisation and economic development have led to substantial changes in China's educational policy and governance, curriculum and pedagogy (Liu 2005; Paine and Fang 2006). Recent educational reform efforts are comprehensive and wide-reaching and aimed in large part to recalibrate Chinese society to the demands of the global 'knowledge economy'. A particular characteristic of these reforms is that the Central Government has promoted Western 'best practice' as an essential point of reference (Halstead and Zhu 2009). For instance, the reform of the curriculum first piloted in 2001 and nearing final implementation across the country attempts to change not only what is taught, and by whom, but fundamental notions of how learning is best facilitated. In a vision that could best be described as revolutionary, the central government aims to shift the emphasis of teacher-centred pedagogy to student autonomy and from knowledge transmission to knowledge construction (Yu and Wang 2009). The new curriculum emphasises a very different teaching process. Here, teachers are to foster in students active and unique ways of learning, to encourage autonomous learning, and to attempt to engage all children in the learning process (Zhu 2002a, b).

Subsequent reforms continued the improvement of the quality of education at all schooling levels by encouraging creativity, using discussion in teaching to develop independent thinking, developing health awareness, aesthetic appreciation and practical skills, and developing political and moral education from its former emphasis on ideological indoctrination and traditional morality to include new elements such as citizenship, personal development and character education (State Council of P.R. China 1999). Though the development of learner autonomy had been mentioned in some official documents as early as the 1980s, it was made much more explicit in the Programme for the Reform of the Basic Education Curriculum (Experimental) in 2001 as below:

Teachers should . . . cultivate students' independence and autonomy, guide them to question, investigate, explore and study from the practice, and foster them to study actively and in a personalized way under the teacher's instruction. (Ministry of Education of P.R. China 2001)

The significance of these reforms was not lost on commentators. Yang (2007) emphasises the extent of the changes: from a teacher-centred to a student-centred approach, from the delivery of knowledge to the fostering of students' creative competence, from paying attention to the commonalities of students to paying attention to their individualities, from paying great attention to 'good learners' to paying great attention to students with learning difficulties and from a rigid and examination-oriented type of assessment to a formative and 'value-added' assessment system. These expectations are expressed in the curriculum standards of all subjects for both primary and middle schools. The overall aim, therefore, is to embed in students the skills of innovation, creativity and cooperation that are perceived as requisite for globalised knowledge and information-saturated economies (Ministry of Education 1993; Shi and Liu 2005). In this way, the reforms aim to achieve comprehensive development in young people rather than the more limited forms of academic development that have characterised Chinese education.

### **3.2.4 Korea**

Similar to other CHC countries, the Korean economy, society and education have changed a lot during the last decade. In general, the key reform in Korean education recently is to move from an extremely hierarchical system where the central education office strictly controls how schools should be run and teachers have entire power over what students should learn to one where schools have more autonomy in operation and students have more voice in choosing learning practices. In total, since 1954 Korea has carried out major revisions in curriculum seven times to meet newly rising demands for a skilled workforce and a well-educated citizenry as well as the knowledge-based and globalised economy in the twenty-first century (Ministry of Education, Science and Technology 2008).

Curriculum developers have claimed that the tradition of rote learning has resulted in Korean students having to master a large amount of material that is very burdensome. As a result, students have little room for personal enjoyment and the development of creativity. Therefore, in an effort to promote creativity, according to Byong Man Ahn, former Minister of Education, Science and Technology in the Republic of South Korea, the government has worked over the past 2 years to reduce the amount of material students are required to study, beginning with the bold move of reducing the number of required courses per semester. Accordingly, teachers were also encouraged to adopt more student-centred learning practices like discussion, group work, role-playing, experiential learning, problem-based learning and cooperative learning because these practices could enable students to develop their individuality, creativity and knowledge of Korean culture as well as other cultures (Rhodes 2011). In general, the new curriculum tries to remove the receptive styles of learning of rote memory and mechanical training, encourage the students to have hands-on experience, participate in the exploration of knowledge and learn to search for, acquire and process new information. The students are also trained to develop the ability for critical analysis, problem-solving, communication and cooperation.

### 3.2.5 Japan

The education system of Japan is widely known as a competitive and highly bureaucratic system (Knipprath and Arimoto 2007; Doyon 2001). Historically, this competitive education system was effective in terms of resulting in Japanese students' high academic achievement, especially in maths and science on both local and international tests (Doyon 2001). Doyon (2001) claims that the system has also served the needs of industry – and has done so well, at least until recently. This explains why many scholars, researchers and policy officials outside Japan have often tried to investigate factors responsible for Japan's educational success and used Japan's education as a sample for education reforms in their countries. America is one of many countries that were intrigued since the late 1970s by Japanese education. Their investigation resulted in articles, essays and books with revealing titles such as *The Japanese schools: lessons for industrial America* (Duke 1986), *The learning gap: why our schools are failing and what we can learn from Japanese and Chinese education* (Shimahara and Sakai 1992) and *Japanese lessons* (Benjamin 1997).

However, over the last two decades the system was no longer considered to be productive. It was thought that Japanese education through competition and one-sided instilment of knowledge was restraining individuality and creativity and produced people who are maladjusted to new economic needs and globalisation (Roesgaard 1998; Schoppa 1991). This happened because Japan's economy is changing quickly and has become more information-oriented, international, global, and competitive. To meet the newly emerging needs of this economy, employees

must be well educated, autonomous, creative, influential, international and one possessing a spirit of challenge (Negishi 1993). Moreover, in a rapidly changing technological world, companies can no longer afford to solely train their new employees in-house – they need employees who are already to a certain degree trained and skilled and can tackle the problems confronting the modern company (Doyon 2001). These needs are beyond the focus of Japan's traditional education system which is characterised as a one-sided transmission of knowledge system and only emphasises students' academic achievement but not soft skills needed for work. This system mainly aims to produce an obedient workforce that could be trained easily in the company (Doyon 2001). The traditional and highly bureaucratic educational system was claimed to be slow to respond to changing needs in the industrial sector. Therefore, Eisenstadt (1994) claims that 'education reform is absolutely essential' (p. 59).

Since the 1990s the Ministry of Education, Culture, Sports, Science and Technology (MEXT) started to stress in its documents and education policy the importance of the acquisition of intellectual curiosity, thinking faculties, creativity and the ability to learn independently and to have motivation to learn lifelong, besides basic skills, as the appropriate outcomes of education (MEXT 2000a). Along with these new desirable outcomes MEXT first called 'new kinds of achievements (shingakuryoku)' and lately 'real achievement (tashikanagakuryoku)', it is emphasising the need for emotional education (kokoro no kyoiku) that enhances a zest for living (ikiruchikara) (MEXT 2000b). To achieve this goal, MEXT (2000a) claims that the quality of teaching needs to be enhanced. Specifically, trends and recommendations are offering students details about specific courses and expanding small-group education in which the teachers are aware of individual students and there is more two-way interaction between teachers and students. MEXT calls for the introduction of creative thinking among teachers and students, although this task is not easy because Japanese teachers and students were never required to emphasise the promotion of this skill (Doyon 2001). New education reforms especially emphasise the rearrangement of the learning class as a community of collaborative learning. More and more Japanese schools are encouraged to apply the reciprocal teaching which was introduced by Palinscar and Brown (1984) for guiding the students' active group learning and discussion (Sato 2009). The social constructive theory and the Vygotskian sociocultural approaches toward stimulating and supporting the initiative and voluntary learning activities have been increasingly popular at Japanese all schooling levels.

### **3.2.6 Singapore**

Singapore is an island with very few natural resources. Therefore, the country has affirmed that the best way to develop its economy in the twenty-first century is to advocate knowledge-based industries with an emphasis on technical skills and innovation (Chan 2004). To foster these industries, right at the beginning of the



twenty-first century, the government has put strong emphasis on cultivating and fostering greater creativity and innovation among students through the launch of the 'Thinking Schools, Learning Nation' (TSLN) initiative in 1997 by Prime Minister Goh Chok Tong. TSLN aims to develop all students into active learners with critical thinking skills and to develop a creative and critical thinking culture within schools. Major strategies include the teaching of critical and creative thinking skills, the reduction of subject syllabus content, the revision of assessment modes and a greater emphasis on processes instead of on outcomes when appraising schools (Law 2005). Aside from these official reformative policies and plans, there were countless 'unofficial reforms', initiated by reform-minded educators and teachers in their own classrooms. All these reformative efforts aim to restructure different aspects of schooling in order to promote learning and to prepare students to meet the diverse challenges in the future. To establish a new globalised and knowledge-based economy, Singapore has developed the following vision:

[Singapore] students must be Learners, Creators and Communicators to meet the demands of the next century-Learners in the sense that they must view education as a life-long process and develop a passion for continuous learning; Creators who not only have the measure of discipline found in our current workforce but display independent and innovative thinking; and Communicators who are effective team players, able to articulate their ideas confidently. (Tan et al. 2007)

Looking beyond the immediate future, we must focus on lifelong learning and employability for the long-term. Our future prosperity will be built on a knowledge-based economy. That is why we are revamping our education system to produce thinking students. The future economy will be driven by information technology, knowledge, and global competition. (Goh Chok Tong, the Prime Minister of Singapore, 1998, cited in Kumar 2004: 561)

In general, to foster the socioeconomic development in the new century and meet the requirements of newly launched political directives, Tan and Gopinathan (2000) claim that it is not overstated that in the past decade Singaporean education policymakers, schools, principals, teachers and students are being swept along in a literal tide of renovating teaching and learning approaches toward student-centredness.

### **3.2.7 Thailand**

In Thailand, education reform began with policy changes in 1996 as part of Educational Development Plan 8 launched by the Ministry of Education (MOE). These were captured later in the National Education Act of 1999. The reform promoted lifelong learning, decentralisation and autonomy in curriculum design and especially mandated a shift from a teacher-centred mode of instruction to a learner-centred one involving all subjects. The following quotation conveys the highly ambitious and urgent vision for change as stated by Dr Rung Kaewdang, Secretary General of ONEC, in 2000.

Thailand has passed an Education Reform Law. Learning by rote will next year be eliminated from all primary and secondary schools and be replaced with student-centered learning. . . Any teachers found failing to change their teaching style would be listed and provided with video-tapes showing new teaching techniques. If they still failed to improve, they would be sent for intensive training. (cited in Bunnag 2000: 5)

It was in this context that Thailand passed an ambitious National Education Act (NEA) in 1999 (ONEC 1999). This law set new educational goals and sought both to legitimate and stimulate the reform of teaching and learning methods. The substantive thrusts of the NEA were to decentralise authority, empower teachers, create a more active learning environment for pupils and refocus the system from *quantity of graduates* to *quality of learning* (Fry 2002; Hallinger 2004; Kantamara et al. 2006; Pennington 1999). In order to improve the students' achievement and reach the standard of education in Thailand, the MOE emphasises that it is critical to introduce student-centred learning activities like cooperative learning to schools (Tasker 1990).

### 3.2.8 Vietnam

Similar to what has happened in other CHC countries, since the birth of the Renovation policy (known as *Doi Moi*) in 1989, Vietnam has implemented many innovations in education. The reason for these innovations is that after the announcement of the Renovation policy, Vietnam started to shift from a centrally controlled to a market-oriented economy. The development of a market economy involves the progressive application of advanced modern technology in production, business and management. Therefore, the intellectual investment in goods and products gradually increases and more and more original creative work is generated. The new situation requires workers at all levels to be trained and become qualified in many perspectives so that they can be able to work in a new market that requires new working skills such as creativity, independence, flexibility and team work. Unfortunately, Vietnamese graduates have not been trained with these skills. Consequently, although Vietnam has a big and young population, it is always in severe shortage of skilled workers and has a high level of unemployment (Oliver 2002; Institution of International Education 2004). Specifically, the number of unemployed workers increased from 2.7 million in 1998 to 5.2 million in 2003. Noticeably, the unemployment rate among Vietnamese young people remains the highest among the total workforce. In 2003, 87.7 % of young workers in Vietnam were claimed to be unskilled workers (The World Bank 1997).

The main reason contributing to this situation was claimed to be the ineffective education system. Vietnam's educational system was criticised for failing to provide adequate skills for students. In a discussion of the youth transition in Asia, a government officer criticised that

It was a clear indication of the failure of the education system to gauge the coming waves of change and suitably modify their curricula to prepare their students for the new set of challenges. This caused, and continues to cause, mismatch between supply and demand of manpower. (Nguyen cited in Gale and Fahey 2005: 15)

After conducting an examination of the development of education in Vietnam in 2000, UNESCO suggested that Vietnamese students need to be trained with new methods so that they can be provided with new working skills that are in high demand by global employers such as activeness, cooperativeness, creativeness and argumentativeness (Tran 2000). Facing a lot of pressures, finally at the outset of implementing student-centredness, the Ministry of Education and Training (MOET) (2005) strongly emphasised that learning by rote needs to be eliminated from all school levels and replaced with student-centred learning.

So as to meet these requirements, the State declared, at the 7th Congress in June 1991, that the main task of education and training now is to produce a new workforce who can act as a fundamental component to ensure the implementation of socio-economic goals and building and defending the country (Nguyen-Xuan 1995). In this new era, the goal of education has been stated to prepare contingents of well-trained and retrained workers, including leading experts who are enabled to access and apply modern scientific and technological advancements in production (Nguyen and Sloper 1995). To fulfil these new tasks, the State announced that new curricula must aim to elevate people's knowledge, train human resources, foster talent and produce workers with cultural and scientific knowledge, professional skills, creativity and discipline at work; therefore, teaching and learning approaches must, accordingly, change as the teacher-centred teaching approach seems unable to provide learners with such skills (Pham-Minh 1995). In detail, the State claims that

In order to respond to new demands for different competencies and increased quality set out by needs in the market-based economy. There must be radical changes in training methods: to change from passive knowledge transmission in which teachers are talking and learners are taking notes, to advise learners on the ways of active thinking and receiving knowledge, to teach students the methods of self-learning, to teach students the methods of self-learning, systematic collection of information and of analytic and synthetic thinking, to increase the active, and independent attitude of students in learning process and self-management activities in schools and social work. In sum, students need to be provided with new skills so that they are capable of undertaking leadership tasks and preparing the country and a new generation of workers and citizens for the twenty-first century. (Pham-Minh 1995: 59)

The National Education Development Strategy (NEDS) for 2001–2010 also emphasised that one of the shortcomings of Vietnamese education is the lack of cooperative activities (NEDS 2001). One of the main purposes of the education system in coming years is, therefore, to develop students' ability to cooperate with other students (Changing teaching methodologies at colleges and universities 2003).

In 2002, curricula at all schooling levels were once again revised to respond to the call for a shift from quantitative expansion to qualitative improvements announced by the MOET. A significant characteristic of the new curriculum is still the promotion of 'child-centred learning'. Curriculum developers emphasised that teachers need to give up the conventional teaching method where teachers

unilaterally impart knowledge to children and adopt new teaching practices that must place the learners in the centre of the learning process and encourage children to engage in thinking, class participation and problem-solving (Hamano 2010). To respond to this requirement, Vietnamese educators and researchers have, during the last decade, tried to introduce various cooperative learning practices to classrooms through different methods such as writing textbooks to instruct teachers in the use of cooperative learning, designing curriculum in the format of cooperative learning lessons and organising seminars and workshops to practise cooperative learning activities. Accordingly, textbooks have also been subjected to major revisions to enable the learners to develop those skills and knowledge that could be used in the real world and everyday life. For example, practical examples and appealing pictures were added to replace the contents that were superfluously addressed by multiple subjects. Ideas and concepts in each lesson were also revised to provide the learners with update information and trends.

In sum, during the past two decades, global economic competitiveness has become the main motive driving changes in every aspect of society, including education in CHC countries (Ng 2009). To meet the demands of a globalised knowledge-based economy, CHC countries have carried out many innovations in their education system. Sahlberg (2006) called these reforms ‘the Global Education Reform Movement’. The main characteristics of these reforms, as claimed by Ng (2009: 6–7), are ‘promoting lifelong learning and education, improving qualities of learning, recognising curriculum into key learning areas, developing critical thinking skills, promoting multiculturalism and global awareness/outlook, and raising level of teacher professionalism’. A number of progressive theoretical perspectives have come into play in the current development of education in these countries. The new ‘-isms’ such as constructivism, post-structuralism and multiculturalism have increasingly been imported to CHC classrooms (Ng 2009). Student-centred approaches like independent and cooperative learning have quickly become popular because they help reformers achieve the goal of changing students from being passive receivers to active doers in their learning.

### 3.3 Cooperative Learning in CHC Classrooms

Cooperative learning has been developed, studied, implemented and improved by researchers in many countries across the world. As stated in Chap. 2, in the Western world cooperative learning has been widely recognised to be an effective teaching approach that increases students’ academic achievement, promotes students’ learning and social relations and enhances students’ cognitive development and social development as knowledge building, meta-cognition, self-esteem and positive peer relationship. Unfortunately, most existing studies have been conducted mainly by and on Westerners with fundamental assumptions based on Western values. When being implemented in CHC classroom, cooperative learning is unsure to produce the same outcomes because CHC countries are characterised

by cultural values that very much differ to those in Western countries. These cultural values play an important role in deterring the effectiveness of cooperative learning in the CHC classroom because researchers who analyse cross-cultural teaching and learning suggest that classrooms are dynamic systems where different components interact, thus students' achievement cannot be solely attributed to teaching instruction but other factors such as cognitive level and the local culture (Biggs and Watkins 2001; Schmidt et al. 1996; Stedman 1997).

In fact, a growing number of CHC educators and researchers have found that many teaching and learning practices imported from the West have failed to improve CHC students academically and do not interest local teachers and students. Young-Ihm (2002), for instance, conducted research in a large Korean preschool and pointed to a large discrepancy between what the teachers believe (US/Western models of child-centred approaches) and what they actually practise (remaining traditional). Munro-Smith (2003) also reported that many modern US- and Western-based learning schools in China have failed to improve students' academic records, thus parents are turning in favour of schools that retain traditional educational methods. A similar situation is also taking place in many Hong Kong universities. The management boards of a series of universities are considering whether they should continue the 'innovation revolution' because the emphasis on a Western type of university culture (public accountability, staff appraisal, promotion and substantiation based increasingly on an individual's ability to conform to the shift in work culture, etc.) has resulted in the loss of experienced staff (Phuong-Mai 2008).

In the case of cooperative learning, the effectiveness of this instructional approach on CHC students' academic performance is questioned. The body of literature has documented many studies that confirm the positive impact of cooperative learning on CHC students' academic outcomes. However, many studies have, at the same time, revealed contradictory findings. To provide a clearer picture of how cooperative learning has been adopted to the CHC context and how CHC teachers and students perceive this teaching instruction, the following section will critically review a number of studies which have been done to investigate the impact of cooperative learning on CHC students' academic achievement. To be chosen, these studies had to meet the following criteria. First, they had to measure effects of cooperative learning on CHC students' academic achievement. Second, they had to be conducted in classroom or programmatic setting rather than under more controlled laboratory conditions. Finally, they had to be published or reported in 1990 or later. This criterion was selected on the grounds that recent studies may be more relevant to the current global context in which students learn.

After screening a wide variety of electronic and print resources to identify references for possible inclusion in this study, including ERIC (Educational Resources Information Center), Education Index and Dissertation Abstracts International, and contacting researchers who are active in the field and asking them to provide relevant research or to identify additional sources of studies, the researcher found a number of studies that met the aforementioned criteria. These are summarised and presented in Table 3.1.

**Table 3.1** Cooperative learning studies and academic performance of CHC students

Researchers (year)	Location	Number of students	School level	Treatment methods	Duration	Subject area	Achievement effects
1. Betty (2000)	Hong Kong	Not reported	Primary	STAD	1 semester	Not reported	+
2. Chang (2006)	Taiwan	Not reported	Primary	STAD	10 weeks	Visual arts curriculum	+
3. Chan (2000)	Singapore	Not reported	Primary	Mixed cooperative learning methods	Not reported	Maths	0
4. Cheng (2006)	Taiwan	98	College	Group Investigation	8 weeks	Technology	+
5. Chung (1999)	Hong Kong	23	College	Mixed	1 semester	Maths	-
6. Eva (2003)	Hong Kong	21	Secondary	Mixed methods	2 terms	English	0
7. Hassim et al. (2004)	Malaysia	128	College	Mixed methods	1 semester	Industrial engineering	+
8. Hwang et al. (2005)	Hong Kong	122	College	Group Investigation	1 semester	Accounting	+
9. Law (2005)	China	Not reported	Primary	STAD	1 term	Social science subjects	-
10. Lee et al. (1999)	Singapore	4 teachers	Primary	Mixed	1 year	Social science subjects	+
11. Lee et al. (1999)	Singapore	286 (3 classes)	Primary	Mainly Jigsaw	1 year	Social science studies	0 (1 class) + (2 classes)
12. Lee (1990)	Malaysia	Not reported	Secondary	TGT & STAD	Not reported	Maths	+
13. Liao (2006)	Taiwan	84	Not reported	Mixed methods	12 weeks	English	+
14. Meriam Ismail (2000)	Malaysia	Not reported	Secondary	TGT	3.5 weeks	Maths	0
15. Messier (2003)	China	145	Secondary	Mixed methods	4 weeks	English	-
16. Sachs et al. (2003)	Hong Kong	520	Primary	Project team	1 year	English	-
17. Tan et al. (2007)	Singapore	241	Secondary	Group Investigation	1 semester	Geography	0

In the column of achievement effects, 0 indicates no differences, + indicates positive achievement, and - indicates that a control group significantly exceeded an experimental group in achievement

The results presented in Table 3.1 show that cooperative learning has brought about mixed achievement outcomes to CHC students, including negative, neutral and positive ones. Noticeably, the results reported that among 17 studies reviewed above, there were eight studies reporting neutral and negative results and one study reporting neutral and positive outcomes. As such, 50 % of the studies revealed neutral and negative findings. This ratio challenges a very common conclusion of Johnson et al. (2000) and many other researchers (e.g. Ravenscroft et al. 1995; Slavin 1983) that cooperative learning efforts result in higher individual achievement than do competitive or individualistic efforts. This finding raises an issue that the effectiveness of cooperative learning seems very questionable in the CHC context. The question now is why cooperative learning did not help improve academic achievements of CHC students as much as it usually does in Western classrooms.

There are, in fact, many answers to such a question. One answer may be that CHC students had not been familiar with cooperative learning, so they studied less effectively when working with this approach. Another answer may be that research findings were not reliable because it is difficult to find a research without any weakness in terms of design and implementation. The studies reviewed in this study might face these two weaknesses, so the results might, to some extent, be questioned. However, taken together, the researcher identified an interesting point that all those studies that reported neutral and negative outcomes (eight studies in Table 3.1) commented that the local institutional constraints and disjunctions between some principles of cooperative learning and the CHC cultural values were one of the main causes contributing to the failure of cooperative learning in CHC classrooms. The sections below explain these constraints and disjunctions in detail.

The study conducted by Tan et al. (2007) evaluated the effects of the group investigation method of cooperative learning versus the effects of the traditional whole-class method of instruction on students' academic performance and on their motivation to learn in Singaporean classes. The results revealed that the group investigation experiment was not more effective than the traditional method because the traditional learning culture of the local students did not match some requirements of cooperative learning. The students, for instance, were accustomed to learning passively from teachers, taking notes and preparing for tests and examinations. They were not familiar with investigating a topic, acquiring information by themselves or from their peers or learning in groups. Therefore, they wanted teachers to present the academic materials to them instead of being asked to search for information. The students also encountered difficulties in researching topics because they were not familiar with conducting research independently, but only recorded the materials that their teachers presented (prepackaged knowledge). *(This passive learning culture completely conflicts with one of the main cooperative learning principles which emphasises that cooperative learners must be active and independent in their learning. What students find can bring teachers' knowledge into question).* Besides, the participating students of this study also commented that group investigation required more of their time than did traditional whole-class

instruction, so they had insufficient time to study for other tests and to revise for the forthcoming examinations. These findings pointed out that although most of the earlier studies on group investigation (Lazarowitz and Karsenty 1990; Shachar and Sharan 1994; Sharan and Hertz-Lazarowitz 1980; Sharan and Shachar 1988; Sharan and Shaulov 1990; Sharan et al. 1985) yielded significant differences between cooperative learning and the teacher-centred learning approach in terms of improving students' academic achievements, the group investigation study of Tan et al. failed to work with Singaporean students.

Sachs et al. (2003) conducted a 1-year study to develop innovative modes of cooperative teaching and learning, investigate the acquisition and development of the students' communication strategies and compare the effects of transmissive versus cooperative learning in facilitating the students' English language development. The findings reported that most of the teachers in their study could not complete cooperative tasks properly because they needed to spend a large proportion of time setting up and explaining the task procedures. The teachers explained that this time was necessary because if they did not instruct the students in detail, the students would be unable to complete the tasks. *(This is different with cooperative learning principles as cooperative learning requires teachers to provide a low level of formal structure, an ill-structured task and a synthesis of skill. It seems that teaching and learning practices in CHC classrooms are a considerable challenge for what cooperative learning requires: teachers should move from the position as the 'sage on the stage' to one as a 'guide on the side').* Furthermore, the researchers of this study complained that the participating students often felt anxious when sharing points of view in groups. This led to unproductive group work and discussions. *(This learning culture of CHC students limits the effectiveness of cooperative learning remarkably because group discussion is an essential component of all cooperative learning strategies.)*

Eva's study (2003) examined the effects of positive interdependence and students' interaction as principles of cooperative learning on students' self-esteem and motivation. Eva reported that the students did not work effectively because they faced a number of problems related to group discussion. Specifically, they felt very uncomfortable with arguments and conflicts in groups. Therefore, they were unwilling to participate fully and honestly in the group discussions. This led to ineffective group discussion because almost every group member ended up with his or her own decision. *(This 'survive in harmony' culture does not suit one of the five cooperative learning essential conditions, namely, 'face-to-face promotive interaction', because this condition requires cooperative students to challenge each other's conclusion and reasoning so that they can give answers that they may not be able to find if working alone.)*

Chung (1999) conducted a study to investigate the effectiveness of cooperative learning in enhancing the mathematics performance of students with learning difficulties. The design of the learning programme was based on Team Assisted Individualization (TAI), a programme developed by Slavin et al. in 1984 that combines cooperative learning with individualised instruction to meet the needs of a diverse classroom in learning mathematics. The results indicated that the



control group performed better than the treatment group on some assignments. Main problems that prevented the treatment group in Chung's study from studying effectively were similar to those problems that were found in Eva's study (2003) (e.g. the students did not exchange feedback actively and honestly and felt uncomfortable when engaging in peer assessment).

Messier (2003) examined two teaching styles in Chinese schools, traditional lecture-based and cooperative learning. The results showed that the participants in the traditional lecture-based group obtained higher achievement scores during the course of the semester. Messier did not face any problems related to the students but he claimed that the traditional teaching practice had a great impact on the students' academic achievement. The teachers only encouraged memorisation which placed less value on the students. They did not promote cooperative learning and rarely asked questions from group settings. In short, the teachers did not encourage the students to engage in much group discussion. *(This practice is against one of the most important instructions of cooperative learning that requires teachers to encourage students to work in a team to develop their critical and creative ideas.)*

Even for those studies which reported positive outcomes (eight studies in Table 3.1), some reported that their studies were hindered by a number of barriers related to mismatches between cooperative learning philosophies and the participants' culture. For instance, Lee et al. (1999) claimed that their study was not well conducted owing to two main difficulties. First, the instructors did not support the study wholeheartedly because they were doubtful that cooperative learning would work as well in the Singapore school culture. There was also reluctance among some teachers to change to a classroom organisation that was so different and which seemed to de-emphasise competition and individual merit. Second, the students did not work effectively because they had a strong culture of competition. Even in the team work, team members spent much of their time engaging in competitive and individualistic learning. *(This indicates that the students were not interested in the notion of 'sink or swim together'. As such, the inter-dependent component, one of the five essential elements of cooperative learning, would be hardly implemented properly in the Singaporean context.)*

In the study conducted by Hassim et al. (2004), the researchers reported that one of the biggest problems in their study was the existence of those students who had a strong 'individualism culture', so they refused to cooperate. Consequently, their groups became dysfunctional. This point is very similar to what Sugie (1999) found about Japanese students' culture. Sugie claimed that one may say that collectivism is one of the characteristics of Japanese culture, but at the same time there are data that indicate that Japanese are very competitive. Therefore, the main issue which many recent Japanese educational reforms need to address is how to unite students together. Unfortunately, according to Sugie's report, no educational reforms have, so far, solved this problem successfully.

Similar to the case of Messier's study (2003), Zakaria and Iksan (2007) found that among many other challenges that hindered the implementation of cooperative learning in CHC countries, CHC teachers' perceptions toward teaching and learning were a large barrier. They specified that the culture of 'Do not trust

students in acquiring knowledge by themselves' of Malaysian teachers strongly prevented the implementation of cooperative learning into Malaysian classrooms. Malaysian teachers think that they must tell their students what and how to learn because only teachers have the knowledge and expertise. *(This perception is opposite to a preference of cooperative learning which allows students to investigate individually then share their investigation within a group. To this point, their knowledge is even higher than their teacher's.)*

In summary, although cooperative learning has been claimed to be one of the most researched and empirically well-documented forms of group-based learning in terms of its positive impact on a variety of outcomes (Johnson et al. 2000), the success of this instructional approach should not be generalised to CHC classrooms. There were still a number of studies that reported that cooperative learning was not, in fact, better than other traditional teaching and learning practices in terms of increasing CHC students' academic achievements and it was also of little interest to CHC teachers and students. The main reason was that there are various mismatches between cooperative learning principles and the sociocultural context of CHC countries. One of the major mismatches was found in the hierarchical perceptions of CHC teachers that believe knowledge should be transmitted from the teacher to the students and the principle that requires teachers to stay equal to students of cooperative learning models. Besides, the passive learning culture of CHC students strongly conflicts with the philosophy that sees students as the main actors and doers in the class as recommended by cooperative learning researchers. Moreover, institutional constraints of CHC education institutions such as crowded classes and poor infrastructure also cause CHC teachers difficulties in implementing cooperative learning. To achieve better success in implementing cooperative learning in CHC classrooms, reformers therefore need to solve these disjunctions and constraints first. To avoid piecemeal efforts, there needs to be an applied theoretical framework guiding future reformers. Chapter 4 will attempt to develop such a framework.

### 3.4 Chapter Summary

- During the past two decades, CHC countries have undergone massive cultural, social, political and especially economic changes.
- The new globalised knowledge-based economy in CHC countries has driven significant changes in CHC educational systems.
- CHC governments have issued a plethora of reports that have suggested, often demanded, the replacement of teacher-centredness by student-centredness.
- Cooperative learning has been emerging as an ideal alternative instructional approach to teacher-centred learning practices in CHC classrooms because it could provide students with skills that are strongly required at today's workplace.

- Unlike the widely recognised success of cooperative learning in Western classrooms, in CHC classes the effectiveness of this instructional approach is questioned because cooperative learning was, in many cases, found not to be more helpful than the traditional teacher-centredness.
- The ineffectiveness of cooperative learning in CHC classrooms comes from the problem that this instructional approach does not fit the sociocultural context of CHC countries in many ways. For instance, cooperative learning is constrained by various institutional conditions at CHC institutions. Importantly, many cooperative learning philosophies conflict with the teaching and learning culture in CHC classrooms.

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# Chapter 4

## An Applied Theoretical Framework to Implement Cooperative Learning in CHC Countries

### 4.1 Introduction

As discussed in Chap. 3, it would be a mistake if we generalise that cooperative learning produces the same outcomes in all sociocultural contexts. In CHC classrooms this approach has failed to prove its effectiveness in consistently improving CHC students' learning outcomes and interesting CHC teachers and students. The findings of studies reviewed in Chap. 3 revealed that the ineffectiveness of cooperative learning in CHC classrooms is resulted from mismatches between cooperative learning principles and the sociocultural context of CHC countries. To better the current situation, it is proposed that when bringing cooperative learning to CHC classrooms, reformers should carefully examine all factors that could pull and push cooperative learning. This is a 'need' because learning is not an independent variable that stands alone. Rather, learning is shaped and influenced by various factors including teaching methods, learning tasks, assessment demands, teaching and learning workload and students' learning culture in different contexts (Volet et al. 1994). Besides, infrastructure has also been claimed as an influential factor on learning (Phuong-Mai et al. 2012). Therefore, it is necessary to examine the impact of institutional conditions in CHC classrooms on the operation of cooperative learning. Unfortunately, such examinations have not been done properly by reformers in CHC countries. Moreover, there is often a serious lack of cooperation among people working at different levels of the implementation process in carrying out educational reforms in CHC countries. This is why Resnik (2006), Sternberg (2007), Tikly (2004) and Walker and Dimmock (2000) warn that urgent educational reforms in CHC countries are showing an absence of the healthy scepticism necessary when introducing any foreign educational initiatives.

To make some contributions to improving the present situation, this chapter will propose an applied theoretical framework that could guide reformers to implement cooperative learning in CHC classrooms more appropriately so that better success could be achieved. This framework is based on four critical lenses developed by Ng



(2009) and central to Activity Theory (Engeström 2001; Leont'Ve 1978; Vygotsky 1978). Before discussing this framework in detail, the section below will critically discuss how cooperative learning reforms have often been carried out in CHC countries. This aims to provide reformers with useful information so that they could implement cooperative learning more effectively in the future.

## 4.2 The Procedures of Implementing Current Cooperative Learning Reforms in CHC Countries

It can be said that the current implementation process of cooperative learning reforms in CHC countries typically follows what policy analyses (e.g. Fullan 1991; Levin 2001) call the 'designer-administrator-worker' model that conceptualises educational reforms as involving different stages. The first stage is policymakers (i.e. the government, district) who act at the macro level and are responsible for setting out a 'picture' of the reform (i.e. what changes are needed and what principles and actions should be used to get implementers to put their 'picture' into practice). These people oversee the whole design process and are concerned mainly about how to get outcomes. The second stage is school administrators who are in charge of managing the implementation process at the operation level. The last stage is teachers and students who carry out the reform. The biggest shortcoming of this traditional stage model is that people at the three stages have different concerns and discourses and do not often negotiate with each other or support each other to implement the reform. The implementers at the micro level (school administrators, teachers and students) are even often taken as a barrier who blocks or slows down the implementation. This happens because while carrying out changes, those people at the micro level, according to Sabatier and Mazmanian (1980), act not only from institutional incentives, but also from professional and personal motivation. They may see some aspects of the reform inappropriate or unsuitable to the students in the real context, so they act differently or even resist to the change. This leads to a common problem that the intentions of the policymakers are often not carried out properly as initially planned. Ng (2009) claims that there is always a pronounced gap between what the reformers intend to do and how the reform is actually implemented and impacts on school and classroom practice. This explains why there have been many reforms which seem 'very impressive and strong only at the district level, but the connection to classroom practice is weak' (Elmore 1996: 11).

Generally speaking, the current procedures of implementing cooperative learning reforms in CHC countries show a weak connection between people at different levels. At the macro level, CHC governments and policymakers appear very much impressed by the success of cooperative learning in the Western world. They assume that this approach unproblematically yields the same outcomes in CHC classrooms. They have, therefore, insistently and continuously issued policies

and launched reforms to disseminate cooperative learning as quickly as possible. Discussions in Chap. 3 have shown that CHC education systems have been bombarded by hundreds of reports that have called for a change in teaching and learning from the traditional teacher-centredness to student-centredness, especially to cooperative learning. The quotation cited in ‘Solutions for changing of teaching methodologies’ (2004: 50), a conference proceedings issued by the MOET of Vietnam, below shows how eagerly Vietnamese policymakers want to push the reform.

... Changing methodologies is urgent. The urgency does not allow us to wait until all of the conditions are fulfilled. We have to do it right now! (Cited in [Phuong-Mai 2008: 46](#))

In efforts to achieve the reformatory goal, CHC governments have tried different methods. They did not hesitate to spend a large portion of the national budget in staff development activities. Each year millions of dollars as well as millions of teacher and administrative hours are ‘invested’ in improving educators’ professional development (e.g. hundreds of workshops and seminars are held every year to train local teachers). Ministries of education in CHC countries have also strongly called for translating and publishing documents about cooperative learning to local languages so that local teachers and students could learn and apply cooperative learning easily (e.g. books about cooperative learning of David W. Johnson and Roger T. Johnson have been widely translated and used at many CHC colleges). At the same time, CHC governments have recently become very keen on sending their teaching staff overseas to upgrade teaching methods, mostly to learn student-centred teaching techniques including cooperative learning. To popularise cooperative learning, some CHC governments (Singapore is an example) have even implemented very strict policies that mandatorily required the whole school to entirely get rid of and replace the traditional teacher-centredness with cooperative learning. They employed cooperative learning researchers and experts to supervise and assist every single teacher throughout the implementation process to make sure they could master the practice and then be able to transfer the instruction to their students.

In return, at the micro level due to the top-down hierarchical management culture, CHC teachers and students often receive and carry out the policy but dare not to request people at the macro level to reconsider the reform even if they find some aspects of the reform culturally and institutionally inappropriate in the real context. Their voices seemed to have been largely marginalised, even entirely ignored. Studies reviewed in Chap. 3 revealed that CHC teachers, and students faced various obstacles when putting cooperative learning into operation. For instance, many teachers were reluctant to employ this instructional approach because cooperative learning activities took a lot of their time. They were then unable to complete the curriculum to prepare students for exams. Besides, a large number of the teachers stated that they were afraid that students would get low scores if they gave up their traditional role as a knowledge transmitter. Still, some others complained that limited reading resources stopped them from organising interesting cooperative learning activities to attract students. Regarding students,

the reviewed studies reported that many CHC students were not interested in those cooperative learning tasks that required independent learning without the teacher's supervision. Many of them refused to participate in peer assessment activities because they were not familiar with exchanging feedback directly.

Problematically, it is not culturally appropriate for CHC teachers and students to reject or comment about the reform. This is a paradox because teachers and students are those most immediately involved in and affected by the reform but are usually not at the forefront nor are they consulted. This leads to a problem that CHC teachers and students do not always implement cooperative learning seriously. They often implement the method now and then, usually only on special occasions when their class has visitors (e.g. the headmaster, inspectors, their colleagues). This explains why despite of huge efforts reformers have put in non-stop teaching reforms in CHC education institutions, only minor and short-term changes in some classrooms are seen. By contrast, innovations that result in major and long-lasting change within the school organisation are rarely evident. This situation reflects a paradox described by Christine (2005): while educational reformers are always trying to propose innovations to change education for the better, schools [teachers and students] have been particularly resistant to change; and while outsiders think schools never change or change very slowly, teachers complain of being over-reformed. Evaluating the position of cooperative learning in CHC classrooms, Davidson (1995) claims that there is still a long journey to go before cooperative learning is widely accepted and integrated in Asian [CHC included] classrooms.

### **4.3 An Applied Theoretical Framework to Better Cooperative Learning Reforms in CHC Countries**

The applied theoretical framework proposed in this chapter is based on the four critical lenses developed by Ng (2009). The advantage of these four lenses is that they disclose multifactors that researchers should consider when implementing educational reforms. These factors exist on both the surface and basic level and the deep inside and hidden level. The four lenses are central to the Activity Theory (Vygotsky 1978; Leont'Ve 1978) and consistent with the five principles on researching activity system that Engeström proposed: activity system as a unit of analysis, multivoicedness, historicity, contradiction and expansive transformation (Engeström 1999, 2001). These lenses are also in tune with major theoretical tenets of sociocultural theories (e.g. Cole 1998). It is hoped that discussions framed by these four lenses could be used as an applied theoretical framework to guide educators in CHC countries to implement future learning reforms more effectively. The researcher has, during the last 5 years, conducted several studies to collect empirical findings to demonstrate that this theoretical framework is practical and highly applicable in reality (these empirical studies will be presented in the later Chapters of this book). The following sections will discuss the four lenses in detail.

### **4.3.1 *Lens 1: Basic Unit of Analysis***

Ng (2009) claims that reformers first need to place a particular reform in the context of either an activity system or interacting systems and consider a reformative action in light of:

- The mediated action between subject and object
- Affordances and constraints originated from the rules, communities and division of labour
- Contradiction aroused from the redefinition of object between interacting activity systems

Following this instruction when implementing cooperative learning, micro-analyses need to investigate CHC students' and teachers' perceptions about cooperative learning and their readiness to adopt it. Reformers also need to examine such factors as whether teachers' workload affects the adopting of cooperative learning practices. If teachers are overloaded, they may not be interested in organising time-consuming cooperative learning activities. Besides, it is important for reformers to examine the rules or norms governing the notion of effective learning and teaching in CHC classrooms. If cooperative learning values do not fit well with existing norms governing how learning or teaching should be delivered in CHC classrooms, resistance against the renovation can be expected. CHC teachers may, for instance, feel reluctant to spend much time on group work because they would believe completing the curriculum to help students pass exams is more important. They may also not be interested in those cooperative learning activities that aim to improve students' interpersonal skills because as Gow and Kember (1990) and Morris (1985) claim CHC teachers' teaching is often valued by students' academic achievements and scores on exams but not the mastery of other soft skills. Similarly, CHC students may also be unmotivated to participate in group discussions because their biggest concern is often to accomplish all lessons in the curriculum to deal with exams (Biggs 1987, 1991; Gow and Kember 1990). Pong-Wing-Yan and Chow (2002) warn that in exam-driven education system [like systems in CHC countries], students may not see cooperative learning as an effective method to heighten their study achievement but rather as valuable learning time being lost.

Last but not least, learning has been widely claimed to be heavily affected by assessment practices (Biggs 1993; Elton and Laurillard 1979; Kember and Gow 1994). Therefore, it is suggested that reformers should investigate how the current assessment practices at CHC institutions support and hinder the operation of cooperative learning.

### **4.3.2 *Lens 2: Historicity and Continuity***

At this level Ng claims that it is important to ground the analysis of a particular educational reform in an activity system in different moments – historic, current and

future. Educational reforms are to deal with something that requires modification in the historical development of a practice. In other words, reforms can be taken as attempts to modify existing practice to deal with emerging challenges in the future.

When CHC governments called for the reform of cooperative learning, this means that the traditional teacher-centredness has become inadequate to respond to economic and social challenges and requirements of the twenty-first century. However, it would be dangerous if reformers simply remove the old practices and ignore the impact of their historical development on the reform. This is a warning because teacher-centredness originated from Confucius teaching that has dominated almost all aspects of CHC societies for a long time. Confucian values have been embedded in CHC people's mentality for many decades and are not easily removed. In the educational realm, Confucius taught that teachers are the main sources enriching students' knowledge and students only need to receive knowledge from teachers as a truth rather than try to think independently, challenge the teacher's knowledge and draw their own conclusions (Ruby and Ladd 1999). Such teachings have become what Schein (1992) calls 'basic assumptions' that are unconscious, taken-for-granted beliefs, perceptions and thoughts that gild teachers' and students' behaviours. According to Finnan and Levin (2000), these basic assumptions are like 'a vast web of intricate and interlocking ideas, values, beliefs and practices that protect the school from change' (p. 93). As a result, if CHC teachers and students have renovations imposed that do not fit these assumptions, they are very likely to reject the reform. This sends a message that CHC reformers must take conscious considerations when replacing traditional teacher-centredness by cooperative learning. It would be hard for CHC teachers to completely rotate their roles from a knowledge deliverer to a knowledge facilitator as required by cooperative learning researchers. Similarly, CHC students would find it uneasy to move from dependent and passive knowledge receivers to independent and active knowledge seekers. In this situation, to make cooperative learning welcome and accepted by CHC teachers and students, the best way would be developing strategies to solve disjunctions between teaching and learning culture in the CHC context and cooperative learning principles. This may help encourage CHC teachers and students to adopt cooperative learning practices more comfortably and willingly.

Institutional infrastructure at CHC institutions is also another historical heritage that is very likely to have influential impacts on the effectiveness of cooperative learning practices. Educators in CHC countries often complain about large-size classes and limited reading resources. When implementing cooperative learning, teachers would find it hard to operate and manage many cooperative learning groups working simultaneously. Moreover, they may be unable to organise interesting cooperative learning activities if they do not have a variety of material resources.

### ***4.3.3 Lens 3: Multivoicedness***

In addition to considering factors existing at lens 1 and lens 2 above, Ng warns that reformers also need to consider voices of different people. This is necessary

because an activity system includes many different people who hold various perspectives, beliefs and understandings of the object. Importantly, reformers, according to Ng, need to investigate and pay attention to whose voice dominates the reforming process and what events or factors have contributed to its dominance.

The previous Chap. 3 has discussed how the globalised knowledge-based economy has impacted on educational reforms in CHC countries during the last few decades. This discussion shows that student-centredness and cooperative learning reforms in CHC countries are mainly steered by economic requirements in the twenty-first century. Ng states that the dominance of the economic voice in these reforms is understandable because these reforms were formulated in the wake of the Asian economic crisis in the late 1990s, thus promoting learning has been taken as the prime solution for the future economic challenges. However, it is noticed that cooperative learning reforms are also pulled and pushed by many other internal and external factors. Main internal factors are principals, teachers and students who are in charge of implementing the reform, so have powerful voices in deciding its success or failure. Fullan (2000) warns that these people are ‘a core requirement for change’ (p.158). Reformers, therefore, need to understand these people’s needs and suggestions so that timely adjustments of the reform could be made to keep them interested in the implementation process.

Furthermore, reformers should also take into consideration the impact of external factors, although Hargreaves and Fullan (1998) found that most schools are not in the habit of seeking outside connections because their own norms and structures of privatisation and rigid hierarchical bureaucracies have kept them withdrawn from the surrounding environments. No matter what schools prefer, Christie (2005) warns that schools are a part of the societies in which they operate, thus what happens outside schools certainly influences what happens inside schools, especially in today’s world, as Fullan (2000) claims, when ‘the external context of schools has changed dramatically ... The walls of the school have become more permeable and transparent’ (p. 582). Therefore, the best way is to open schools’ doors and accept external influences. Among many external forces, Fullan (2000) further advises that there are at least five powerful forces that schools must contend with and turn to their advantage. These five forces are parents and community, technology, corporate connections, government policy and the wider teaching profession.

In brief, Fullan and Stiegelbauer (1991) summarise all forces that could have an impact on the innovation and reformers should take into consideration as below:

Effective reform depends on the combination of all the factors. . . The characteristics of the nature of the change, the make-up of the local district, the character of individual schools and teachers, and the existences and form of external relationships interact to produce conditions for change or nonchange. (p. 92)

To illustrate how powerfully external forces could react against reforms, the researcher takes the case of reforming teaching methods at innovative schools in China reported in Munro-Smith’s paper (2003) as an example. Munro-Smith (2003) documented that a couple of years ago, many Chinese innovative schools started a

campaign to replace all traditional teacher-centred learning practices by US- and Western-based learning. This campaign at the beginning sounded very impressive and made a good impression on students and parents. Unfortunately, however, it was quickly found that the new practices were unable to improve students' academic achievements any more than traditional teaching practices. Therefore, many innovative schools are being shunned by parents in favour of schools that retain traditional educational methods.

In the case of cooperative learning, one of the external forces that has the potential to have a strong and effective impact on the reform in CHC classrooms is technology. Cooperative learning often requires students to have broad and rich readings to find different perspectives and then bring them to group discussions. To seek these materials, students in advanced countries can easily access them through the Internet and electronic libraries. Unfortunately, CHC education institutions do not often have a good library system but often have very limited access to electronic resources. Moreover, it is very common to see that many teaching staff and students at CHC education institutions are not confident and fluent in using the Internet, especially in searching reading materials electronically. These technological problems are very likely to make cooperative learning reform at CHC institutions not as easy and smooth as it is often in Western countries.

#### ***4.3.4 Lens 4: Contradiction and Transformation***

As discussed above, an effective reformative process needs to have the involvement of many people at different implementation stages. These people have different discourses and concerns and could disagree with each other easily. To achieve success in reform, reformers cannot, therefore, rely on each level separately but have to get people at all levels to agree/interact with each other. Elmore (1996: 18) emphasises that '... connection between the big ideas [the macro level] and the five grains of practice in the core of schooling [the micro level] is a fundamental precondition for any change in practice'.

There may be various methods to bring about the interdependent relationship between these two levels. One method as suggested by the Activity Theory would be seeing the implementation process as adaptation. In addition, resistance and contradictions should be treated as an important dynamic force driving the continuous development of an activity system. People at the micro level (i.e. teachers and students) should not be seen as implementers and simply receivers of the reform but also as negotiators of their interests during the reformative process (cf. Corbett and Wilson 1995). Therefore, macro-level people should treat resistance at the micro level as positive responses so that they can find flexible solutions to work with the lower level. This is important because Ball (1990) argues that the response to policy direction always involves some kind of creative social action. When the micro level reacts against the change, it could mean that they find something wrong or inappropriate inside the change. In this case, the macro level cannot rigidly insist on



keeping the methods to enforce their policy. Rather, they should ask why implementers resist or what factors block the implementation process. By asking such questions, some revisions in their policy may be needed. This may lead to a change in the outcomes that the macro level sets out to achieve depending on how the micro-level people respond to the reform. In addition, the materials used in a reform should be treated as cultural tools to be appropriated.

As discussed in the previous chapter, CHC teachers and students encounter various institutional difficulties and cultural differences in cooperative learning classes. Unfortunately, there was almost no evidence showing that their comments were taken into consideration by policymakers or reformers. That was why cooperative learning reforms in CHC classrooms were often not carried out properly and enthusiastically by the implementers. As a consequence, implementation became piecemeal in many cases. This situation warns that CHC teachers' and students' comments on cooperative learning should be taken into more careful considerations by top-level people.

In brief, Activity Theory sees learning as a factor lying in a complexity in which its effectiveness could be hindered or promoted by many other forces. Based on the structure of the four critical lenses, the researcher has discussed a range of factors that could potentially impact cooperative learning reforms in CHC countries. If being conducted properly, the implementation process of learning reform from the Activity Theory perspective very much differs to the process designed by the traditional Stage Model. Table 4.1 will compare the differences in roles of actors in implementing cooperative learning reforms from the Stage Model and Activity Theory perspectives.

To evaluate the feasibility and application of the theoretical framework proposed in this chapter, the researcher has, so far, conducted several studies to find empirical evidence to make judgements. Findings of these studies demonstrated that if reformers examine all factors recommended by this framework seriously, their reformative success can be guaranteed, at least in the case of implementing cooperative learning in CHC classrooms. In the following four chapters, the researcher will discuss how these factors were addressed to bring about the success of cooperative learning reforms in CHC classrooms. The researcher will also report empirical studies that were conducted to evaluate the effectiveness of the techniques that were developed to address these factors. As aforementioned cooperative learning is pulled and pushed by a range of multiple factors – the researcher was unable to bring all of these factors into examination in one study. Therefore, several studies were conducted and each of them focused on addressing one factor. Specifically:

Chapter 5 reports a study focusing on investigating teaching practices at CHC education institutions and their effects on cooperative learning. As guided by the instruction of the theoretical framework proposed in this chapter, CHC teachers' and students' perceptions toward cooperative learning were first investigated. This aimed to find out those teaching factors that afford and constrain cooperative learning. The historical development of the teacher-centred teaching instruction at CHC education institutions was then discussed to extrapolate how the traditional teacher-centred instruction conflicts with cooperative learning principles. As



**Table 4.1** Conceptual comparison using Stage Model and Activity Theory in the case of implementing cooperative learning reform

	Stage Model	Activity Theory
Cooperative learning reform is defined as...	Systematic programmes of change that involve several stages like policy formulation, implementation and evaluation	Planned actions for transforming existing stable practice that inevitably lead to contradictions, tensions and calls for new forms of interaction
Teachers...	Implementers of cooperative learning reforms	Participants and actors in cooperative learning classrooms
Students...	Receivers of cooperative learning reforms	Participants and actors in cooperative learning classrooms
Cooperative learning materials (i.e. cooperative learning theories, strategies and models)	To be acted upon (seldom discuss the anticipated or required changes in relationship and interaction among stakeholders; implementers follow the original procedures strictly and revisions are not allowed)	As a mediation tool – instil new forms of interaction and relationship (i.e. implementers consider the appropriateness of the original procedures and discuss with people at other stages to make necessary changes)
Resistance	Being taken as a barrier to cooperative learning reform	Being taken as positive forces driving the implementation of cooperative learning practices
Historicity	Cooperative learning reforms are discrete actions, solving immediate problems or providing new directions	Cooperative learning reforms are part of the historical development of an activity system
Policymakers	Launching cooperative learning reforms, setting out outcomes, deciding implementation means and selecting actors participating in the implementation process	One of the members in the community sharing the same object; members from another neighbouring activity system negotiating the object
Research focus	Implementation research and evaluation studies	Focusing on historical analyses of reformative ideas and contextualising changes

Adapted from Ng (2009)

discussed in this proposed theoretical framework, to achieve success in educational reforms, implementers' voices should be heard and their resistance should be seen as driving forces pushing the reform. This study, therefore, carefully examined the participating teachers' suggestions and recommendations and then developed strategies to solve disjunctions between cooperative learning principles and teaching practices at CHC education institutions. This aimed to keep teachers interested in implementing cooperative learning.

Chapter 6 reports a study that investigated assessment practices at CHC education institutions and their impact on cooperative learning. To find out those assessment practices that could promote cooperation among students, the researcher first discussed assessment methods at CHC education institutions and their impact on learning practices. Then, the participating teachers' and students' responses to assessment practices that are recommended by cooperative learning researchers were collected. These responses revealed that the assessment practices that are designed and suggested by cooperative learning researchers are culturally inappropriate to the teaching and learning culture in CHC classrooms. The researcher then developed strategies to redesign these assessment practices to make them suitable and acceptable in the CHC context.

Chapter 7 presents findings of a study that examined the learning culture of CHC students and its impact on cooperative learning. Similar to the procedures of the study reported in Chap. 5, in this study the researcher first investigated CHC students' perceptions toward cooperative learning to find out those learning practices that afford and constrain cooperative learning. The historical development of teacher-centred learning approaches at CHC education institutions was then discussed to reveal how traditional teacher-centred learning practices disagree with cooperative learning principles. Finally, the researcher took suggestions and recommendations of the participating students into examination to develop strategies to solve disjunctions between cooperative learning principles and learning culture of CHC students. This aimed to keep the participating students interested in implementing cooperative learning.

Chapter 8 reports a study that aimed to develop strategies to solve institutional constraints that hinder the application of cooperative learning at CHC education institutions. The study first investigated how cooperative learning practices were constrained by these institutional conditions. It then proposed strategies to enable cooperative learning teachers and students to overcome these institutional barriers.

## 4.4 Chapter Summary

- Cooperative learning reforms in CHC countries are currently following procedures of the traditional designer-administrator-worker model.
- People involved in the implementation process of cooperative learning at CHC institutions tend to act separately, have different discourses and have limited mutual negotiations.
- Cooperative learning reformers in CHC countries tend to treat learning as an isolated factor that is independent of other factors including teaching, assessment, local culture and institutional conditions. Therefore, cooperative learning is often simply imposed on CHC teachers and students.

- The four critical lenses underpinned by Activity Theory propose that learning should be seen as a complex phenomenon which has connections with many other factors that can pull and push the operation and sustainability of a learning practice.
- CHC reformers should examine cooperative learning reforms in line with considering the complexity of existing local practices and rules, policymakers, school administrators, institutions and working culture of teachers and students.
- To bring about success of cooperative learning reforms in the CHC context, all people involved in the implementation process need to have better mutual negotiations. Importantly, CHC teachers' and students' voices need to be taken into consideration because they play an important role in determining the reformative success.

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# Chapter 5

## Teaching Practices at CHC Education Institutions: A Hidden Challenge and Techniques to Enhance Cooperative Learning

### 5.1 Introduction

Various studies have demonstrated that students' approaches to learning are influenced by their teachers' approaches to teaching (e.g. Gow and Kember 1993; Ho 1998; Tang 1993; Trigwell et al. 1999). To influence CHC students to change their learning practices, it is therefore necessary that CHC teachers need to change their instructional approach. In CHC countries, the strong tradition of teacher-directed instruction has been the major teaching and learning style. Commonly the teacher largely talks most of the time and controls the topic, content and procedure of discussion. In return, students listen to the teacher passively and try to take cues from teachers. The literature has documented many criticisms of this passive, one-way transmission of knowledge because it is inadequate in preparing students to meet the challenges they face in today's globalised economy (Harmon 2000). Consequently, since the 1990s the call for teaching and learning reform has permeated CHC countries. It is not an exaggeration to say that CHC teachers have been through the 'school wars' where they continue to be faced with plans for innovation in curriculum and strategies and especially constantly face demands to change what they are teaching as well as how they are teaching.

In attempting to achieve the goal of renovating teaching, every year CHC governments spend millions of dollars in staff development. They encourage and allow teachers to be released from school duties to attend workshops and conferences on a variety of student-centred teaching strategies, classroom management and curriculum reforms. Some governments (e.g. Malaysia, Singapore) have even established special experimental institutions where they employ specialists from overseas to train and supervise local teachers to make sure they master student-centred learning practices and can confidently transfer the reform to their students. Despite these continuous efforts, unfortunately teaching at CHC institutions has not changed much and the main picture is still lecturing domination. So why and how do CHC teachers refuse to change?

To shed more light on this issue, this chapter primarily aims to report an empirical study that was conducted in Vietnam by the researcher to examine how Vietnamese teachers [implying CHC teachers] responded to cooperative learning activities and why they were reluctant to adopt the new teaching instruction wholeheartedly. The study especially attempted to develop culturally appropriate techniques to make teachers feel comfortable when implementing the reform. The chapter will, however, discuss the nature of teaching practices at CHC education institutions first. The purpose of this discussion is to provide a better view about how CHC teachers teach and how their teaching can hinder and support cooperative learning.

## 5.2 Teaching Practices at CHC Education Institutions

Hofstede and Hofstede (2005) claim that CHC nations score high on the Power Distance Index (Malaysia scores highest with 104; China, 80; Singapore, 74; Vietnam, 70; Hong Kong, 68; Korea, 60; Taiwan, 58; and Japan, 54). It is generally asserted that nations with such a high score on power distance place greater emphasis on hierarchical relationships. In contrast to the teacher-equal-student teachings of Socrates, who is thought to be the father of Western philosophy, Confucian teachings instruct learners to respect and obey authority figures (Confucius 1947) – in the educational realm, it means that students should obey and listen to teachers. In Confucian heritage society, a good example of teachers must be shaped in the maxim that ‘to give students a bowl of water, the teacher must have a full bucket of water to dispense’ (Hu 1944: 98). Therefore, teachers need to select knowledge from authoritative sources such as books and classics as they are considered the main sources enriching students’ knowledge. Once teachers obtain enough knowledge, they only need to interpret, analyse and elaborate on these points for students. As a result, CHC students only need to receive knowledge from teachers as a truth rather than try to think independently, challenge the teacher’s knowledge and draw their own conclusions (Ruby and Ladd 1999). Because individuality and uniqueness are relatively unimportant, individual interpretations of content are also considered to be relatively unimportant and, as such, discouraged (Pratt 1992), so students find it unnecessary to source alternative knowledge regarding a particular topic. CHC teachers are very familiar with the concept that teaching is not on how students can create and construct knowledge but on how extant authoritative knowledge can be transmitted and internalised in a most effective and efficient way (Brick 1991; Jin and Cortazzi 1995). In fact, in Asian cultures knowledge is seen in the notion of a ‘body of knowledge’ rather than as creative and individual voyage of discovery (Woodrow 2007).

In a comparative study that was conducted to investigate attitudes of Chinese and British students toward their teachers, Jin and Cortazzi (1998) found that the Chinese students were more likely than British students to think that a good teacher had ‘deep knowledge’; good Chinese teachers were held to have an answer to

students' questions and to be moral examples, whereas good British teachers were seen more as facilitators who arouse students' interest, use effective methods and organise a variety of activities (p. 752). Besides, teachers in CHC nations are not only teachers but also models of correct behaviour. The teacher is ranked just below the King and above the father: the King-the Teacher-the Father (McSwinney 1995). Students should respect teachers not only when they are at school but throughout their lives (Kennedy 2002; Scollon and Scollon 1995). There is a saying in Korea 'One does not dare to step on a teacher's shadow'. A teacher is considered to be a *guru* who is supposed to satisfy learners in the search for the *truth* (in knowledge) and *virtue* (in life) (Phuong-Mai 2008).

The exclusive roles of the teacher in delivering knowledge create a situation in which CHC students are not familiar with questioning, evaluating and generating knowledge. They accept teachers as the definitive knowledge source and adopt the role of passive listeners in the class. They believe that truth is not found primarily in the self but in exemplars [teachers] (Confucius 1947). For a long time, students have been taught to 'master the content, through diligence and patience, without questioning or challenging what is presented' (Pratt 1992: 315). Therefore, debates and discussions are not given attention. Consequently, CHC students do not have many opportunities to practise their speaking skills in front of the public, so they may feel scared of the public presentations and discussions which are strongly emphasised in cooperative lessons. Moreover, since these students are not well equipped with communication skills, they may fail to enter into discussion with their peers in cooperative groups.

These assumptions about teaching and learning have become beliefs which are deeply imbedded in the mentality of both CHC teachers and students and certainly not easily removed. They are barriers that prevent CHC teachers and students from accepting any pedagogical practice that tends to put teachers on a par with their students and detracts from teacher authority. Evaluating teachers' beliefs about how teaching and learning should be could have an impact on how instructional innovations are adopted. Rich (1990) claims that there is differentiation between the ways teachers believe knowledge is acquired; one is the belief that knowledge acquisition occurs through social interaction, as Piaget and Vygotsky would theorise, another is the belief that '... learning is best accomplished when transmitted from active teachers with superior information and experience to passive students who are motivated to receive that information' (p. 85), and teachers who hold the latter belief about knowledge acquisition are less likely to implement student-centred approaches like cooperative learning.

The body of literature has documented a number of studies that found that CHC teachers' resistance to reform was the main cause contributing to failures of educational reforms. Nguyen (2005), for instance, conducted a study 5 years after a Vietnamese college announced a teaching and learning reform campaign to investigate how teaching practices at a college had changed. Participants of the study were 50 teachers, including both senior and junior staff. These teachers were asked to complete a survey that had both closed and open questions about the frequency of teaching approaches that they used in their classes. Fifteen teachers were then invited to participate in a follow-up interview. The survey findings are presented in Table 5.1.

**Table 5.1** Percentage of the frequency of the application of teaching approaches

Teaching approaches	Always (%)	Usually (%)	Sometimes (%)	Rarely (%)	Never (%)
Teacher lectures during the whole lesson and asks students questions individually	18.7	46.7	32	2.6	0
Teacher lectures during most of the lesson and students discuss to answer questions	16	36.7	25.3	20.7	1.3
Teacher lectures (a half) and students work in groups (a half)	14	19	41.7	7.3	20
Teacher reads and students write	0	4.2	19.4	45.8	30.6
Teacher lectures only	0	0	10.9	4.7	84.4

The findings reported that the first approach ‘Teacher lectures during the whole lesson and asks students questions individually’ was applied by the biggest number of teachers (18.7 % ‘always’, 46.7 % ‘usually’ and 32 % ‘sometimes’). In addition, the teachers also showed their frequent application of the approaches which combined both lecturing and allowing students to discuss in groups. In detail, 78 % of the teachers reported that they ‘always’, ‘usually’ and ‘sometimes’ applied the approach ‘Teacher lectures during most of the lesson and students discuss to answer questions’. More than 74 % reported that they ‘always’, ‘usually’ and ‘sometimes’ applied the approach ‘Teacher lectures (a half) and students work in groups (a half)’. The two approaches ‘Teacher reads and students write’ and ‘Teacher lectures only’ were not often applied. However, these two approaches, unfortunately, still existed because there were still a small percentage of teachers applying these approaches. Specifically, more than 4 % (4.2 %) ‘usually’ and more than 19 % (19.4 %) ‘sometimes’ used the approach ‘Teacher reads and students write’ and 10.9 % ‘sometimes’ applied the approach ‘Teacher lectures only’.

In the interview, Nguyen tried to investigate the teachers’ perceptions about how much they supported a student-centredness approach. The findings reported that 19 % of the teachers strongly supported the application of this method in their classes, 37 % supported, 35 % gave no answer, 7 % supported a little and 3 % reported their disagreement. In total, a half of the teachers had positive attitudes toward this radical teaching approach, and the other half had neutral and negative attitudes. The results obtained from the survey and interview in this study revealed that there were still a high percentage of the teachers who showed their reluctance and negative support to innovations in teaching and learning.

In China, in 2003 Messier conducted a study to compare the effectiveness between two teaching styles of traditional lecture-based and cooperative learning. The results revealed that the traditional lecture-based method was more effective than cooperative learning in terms of increasing the students’ academic achievement. Messier claimed that cooperative learning activities in his class were not conducted properly because the participating teachers refused to accept their role as a facilitator but insisted to act as a knowledge transmitter. They strongly encouraged memorisation which placed less value on the students, rarely asked questions from group settings and did not encourage the students to engage in much



group discussion. This evidence showed that the teachers in Messier's study did not agree and support one of the most important instructions of cooperative learning that requires teachers to encourage students to work in a team to develop their critical and creative ideas.

Thanh-Pham (2011b) also conducted a study to investigate how Vietnamese college teachers reacted to the implementation of cooperative learning in their classrooms. The participating teachers and students were invited to complete a questionnaire survey on their experiences of cooperative learning practices. A number of the participants were also interviewed. The responses collected from the survey show that the teachers and students did not understand much about cooperative learning. They thought cooperative learning was a kind of group work. Therefore, when the teachers were asked to choose a format that described the procedures of a cooperative learning lesson given by the researcher, a small percentage of 35 % stated that they 'always', 'often' and 'sometimes' applied the format 'The teacher announces the topic, assigns students to groups, instructs students to work in groups, asks students to evaluate each other, and assesses the group product'. This format was generally considered the best procedure to establish cooperative learning. The majority of them reported that they 'always', 'often' and 'sometimes' applied the format 'The teacher announces the topic. Then, students choose group members to discuss the topic and then report to the class'. This format enabled the teachers to play a minimal role in instructing students to discuss their work in groups. Positively, the participants revealed that group work activities including cooperative learning have been widely used at Vietnamese colleges. In detail, 83 % of the teachers and 88 % of the students said that group work has been 'always', 'often' and 'sometimes' implemented in their classes. Only 17 % of the teachers and 18 % of the students said that they 'seldom' used group work activities. Impressively, no teacher and no student responded that their classes 'never' used this approach.

However, interview responses revealed that the teachers in fact were not willing to implement cooperative learning. They took the action because they had 'no choice' and were 'compulsorily' encouraged to get rid of teacher-centred teaching practices. Some messages illustrated this point were:

We cannot say 'no' to this practice because it is compulsory. We need to employ these activities in any class.

Frankly speaking, we have not been provided with clear theories and trained with real practices in a workshop. However, it is the college's policy and we just go ahead.

The interview findings also disclosed an interesting function of group work activities. From the participating teachers' and students' points of view, group work activities were not perceived as effective in terms of helping the students understand new lessons and come up with new ideas. Surprisingly, 78 % of the interviewees perceived group work as a method to mainly help students remember the text, not to gain a deep understanding or find connections between what was taught in the class and its application in reality. Therefore, many teachers

expressed their concern that if they did not explain new lessons, students would not understand. A message indicating this point of view was:

I usually lecture more when we have new lessons but ask students to work in groups when they have to do homework. It is hard for students to understand new concepts without the teacher's explanation.

Perhaps the teachers' thoughts heavily affected the students' learning habits because many students shared the same opinion that the teacher must play the main role in lecturing and explaining new knowledge to students. According to 77 % of the participating students, friends could help each other remember the text but could not teach each other to understand new lessons. Here is an explanation obtained from one student.

We could read the text by ourselves but sometimes we could not help each other understand new definitions or the figurative meanings of some concepts.

Sharing with friends is good because their ideas can sometimes help me remember what I learned in previous lessons. . . We are usually not worried much about understanding the new lesson because the teacher will break it down for us.

More strongly, another student clarified the roles of the teacher and students as below.

Well, why do we come to school? We need the teacher to explain lessons. If we can understand lessons by ourselves, we do not have to attend classes.

Responses of the students showed that there were two main reasons why the students persistently needed the teacher's instruction and explanations for important points. First, the students had been conditioned to accept that the teacher's words were always correct and friends' words were for consultancy only. For instance, a student said:

Well. We know it is good to be creative but it is safe if we do not write something that is not ensured to be correct in the class.

Second, the students were worried about seeking correct information for coming tests. In their thoughts, correct answers always came from two sources: texts and the teacher's lecturing. The importance of this issue was highlighted because 88 % of the students made this comment. Sample comments were:

I find that reading text carefully and paying close attention to the teacher's lecturing in the class always guarantee a good score.

Ninety percent of the exam comes from the lessons we have learned. Only lazy students who never review lessons fail.

I think being hard working is more important than being creative because we don't have to be creative all the time.

Similarly, one of the open-ended questions in the questionnaire asked the students about how they learned to cope with exams. Sixty percent of them reported that they usually tried to remember key points from the text and also took notes of what the teacher said in the class carefully because they knew that many examination questions did not come from the text but from the teacher's words. It was very

interesting when one student mentioned that her notebook was always borrowed by different friends before each exam because she attended classes very regularly and took notes of lessons clearly and accurately.

In conclusion, the discussion in this chapter pointed out three main ideas: First, CHC teachers are still seen as the only authority in the class. They teach students the new lesson, decide what is right and wrong and tell students what to study for exams. In return, the students find that the only way to get high scores on exams is to remember the text and the teacher's words. As a result, cooperative learning is used as a tool to review lessons and memorise factual information but not create new and complex knowledge. This finding is in contrast with what often happens in constructivist classrooms where the teacher only plays the role of a facilitator who moves around the class to clarify what students do not understand (Michaelsen 1998). Also, it is in conflict with the beliefs and conclusions of almost all cooperative learning researchers who have found that cooperative learning promotes thinking and creativity because the interaction with group mates encourages students to restructure their ideas and feel freer to try out new ideas (Tan et al. 1999). Johnson and Johnson (1999) even claim that cooperative learning assists students to exchange information and create new knowledge that may exceed the teacher's knowledge.

Second, although CHC nations have strongly promoted cooperative learning (as discussed in Chap. 3), CHC teachers appear reluctant to implement the reform. Due to the hierarchical management culture, CHC teachers do not often speak out or show their resistance to the reform but simply follow what the government and policymakers require (but in many cases they did not implement the policy properly). It seems that the teachers have not been convinced by the effectiveness of cooperative learning and could easily turn back to their old practice (teacher-centredness). This explains why many reforms appear to be very systematically prepared and impressive in governmental documents, but there is actually little change in reality. The current situation reflects what Elmore (1996) claims: many reforms seem very impressive and strong only at the macro level, but the connection to classroom practice is weak.

Third, CHC teachers lack fundamental understanding about cooperative learning. Many of them thought that cooperative learning is simply a type of group work. They are unclear about cooperative learning procedures and its functions as well as effectiveness. In fact, cooperative learning is not simply putting students in pairs or in a group to work on a task. It requires more than grouping per se (Johnson et al. 1998; Ledlow 1999). Perhaps CHC teachers organise cooperative learning activities spontaneously with the main purpose of only changing the learning atmosphere. Such inadequately prepared procedures certainly affect the effectiveness of this approach as a number of researchers have claimed that if teachers and students are passively involved in teamwork, group products are not effective (Gillies 2004a, b; Johnson and Johnson 1999).

Findings of the empirical studies reported in this chapter warn that if CHC government and policymakers simply impose the reform on teachers and students, the implementers would not work on the reform wholeheartedly. It is noticed that teachers' resistance to cooperative learning is more likely to occur in CHC nations

where the roles of teachers have been defined and perceived very differently from those in cooperative learning classes. The authoritative knowledge-transmitting teaching style has been developed and accepted by all people in CHC societies for many decades and has become what Argyris (1976) and Argyris and Schon (1974) (cited in Schein 1992) call 'theories-in-use' which actually gild CHC teachers' behaviours, tell them how to perceive, think about and feel about teaching and learning. It seems hard for CHC teachers to change these 'theories-in-use' by imposing external forces. Any renovation that does not fit these 'theories' would be easily rejected or become piecemeal. Empirical findings reported in this chapter demonstrated that CHC teachers could change teaching as required from the top but did not actually change their perceptions about how teaching and learning should be. Therefore, they were actually not motivated to implement the reform properly and consistently.

The present situation proposes that to achieve better success in implementing cooperative learning in CHC classrooms, the key issue is to enable CHC teachers to be willing to delegate authority to students so that students can be empowered to study independently. Importantly, reformers need to have techniques to keep CHC teachers interested in empowering students, not to force them to do so, because this could easily cause resistance. The study presented in the section below attempted to develop these techniques. Underpinned by Activity Theory, the study tried to take suggestions and recommendations of the participating teachers and students into account when designing these techniques. Therefore, these techniques carry a high degree of cultural appropriation.

### **5.3 A Study to Develop Culturally Appropriate Strategies to Enable CHC Teachers to Promote Cooperative Learning**

#### **5.3.1 Methodology**

The research took the form of design-based research which was introduced in 1992 (Brown 1992; Collins 1992). Design-based research is developed as a way to carry out formative research to test and refine educational designs based on theoretical principles derived from prior research (Collins et al. 2004). This approach of progressive refinement in design involves putting forward a first version of a design to see how it works. Then, refinements are made based on the experiences of the researchers, reactions of implementers and constraints of the environments. To achieve an optimal design, the design is usually tested in several design–analysis–redesign cycles that move toward both learning and activity or artefact improvement. Data collected in each cycle may reveal some aspects of the design that are not working, thus the design researcher considers different options to improve

the design in practice and institutes design changes as frequently as necessary (Collins et al. 2004). However, Brown and Campione (1996) emphasise that the design needs to be thought of as an integrated system and any changes in the design need to be considered with respect to how well they fit with other aspects of the design.

Cycles of a design-based research can be summarised in the main stages as outlined below: research problems are identified, and then strategies are proposed to address the concerns. These strategies could be new or based on research gathered from previously tested design principles. These strategies are then retested and refined in a new intervention. Results obtained from this new intervention may disclose new problems, and then possible solutions and the strategies that might best address them are developed. Again the new strategies are brought to another intervention to be tested and refined. In brief, the development of design strategies will undergo a series of testing and refinement cycles, and data are collected systematically in order to redefine the problems. As data are re-examined and reflected upon, new designs are created and implemented, producing a continuous cycle of design–strategic intervention–reflection–redesign.

The outcomes of design-based research are a set of design strategies or guidelines derived empirically. This creates an important characteristic of design-based research – this research methodology is applied to develop theories, not merely to empirically tune ‘what works’ (Cobb et al. 2003). Therefore, their primary goal is to develop a profile rather than to test hypotheses. Final products of design-based research provide a productive perspective for theory development because conjectures of the design are immediately tested in the design process. Also, since the designer has practical considerations to adjust conjectures, the final product sounds applicable. Because the design is produced during the research process, according to Cobb et al. (2003), it is important that the designer generates a comprehensive record of the ongoing design process that supports the retrospective analysis of the experiment. The research team may employ audio records of meetings and logs to document the evolving conjectures, together with the observations that are viewed as either supporting or questioning a conjecture.

Underpinned by the framework of design-based research, the present study was divided into two phases over one term. The first phase lasted for 6 weeks, and then the students did a midterm exam and entered the second phase that lasted for the remaining 5 weeks. In the first phase, the participating teachers were instructed to apply cooperative learning and various student-centred learning activities. These activities aimed to enable the teachers to delegate part of their authority to students. After the first phase was completed, the researcher examined the findings to see what needed to be revised so that the teachers could promote cooperative learning and student-centredness better. The cooperative learning and student-centred learning activities applied in Phase 1 were then modified. This modification aimed to not only condition the teachers to delegate more authority to the students but also make them feel comfortable with and interested in implementing the new practices in Phase 2.

### **5.3.2 Participants**

The study involved 12 college teachers from two universities in Ho Chi Minh and Hanoi who agreed to participate in the study. The participating teachers had 1–10 years of teaching experience; four of the teachers were male and eight were female. All the teachers were volunteers, and many regarded the opportunity to participate in the study as a way of extending their professional knowledge by learning new skills. Twelve classes consisting of 615 second-year students (males = 306, females = 309; mean age for males = 18.86 years and mean age for females = 18.68 years) also participated in the study. These students were from the classes of these 12 teachers.

### **5.3.3 Training Teachers**

All teachers participated in a 2-day workshop to provide them with the background knowledge and skills to help them implement cooperative learning and other student-centred learning activities including role-playing, experiential learning and problem-based learning. The teachers spent time discussing how they would implement these pedagogical practices in their classrooms and received ongoing support from their colleagues as they discussed their issues. Antil et al. (1998) claim that it was important for teachers to have these discussions because research indicates that teachers will decide for themselves on the value and utility of practices for their classrooms. Lopata et al. (2003) and Gillies and Khan (2008) found that teachers are more likely to implement new practices when they have participated in staff development designed to provide them with the background knowledge and skills required to implement this approach to learning in their classrooms. The workshop was organised for 2 days because according to Gillies (2004b, 2006), this period of time could help teachers successfully implement specific communication strategies and cooperative group structures in their classes. The workshop was also extended to provide the teachers with background information on positive interdependence theory (Johnson and Johnson 1990) and social (Vygotsky 1978) and individual constructivism (Piaget 1950). This aimed to provide the teachers with a better understanding about how teacher-centred teaching practices could promote students' knowledge so that they could change their traditional teacher-centredness belief and accept new practices.

### **5.3.4 Context**

The courses used in the study were traditionally taught in a similar format for many years at the two universities. They were taught by way of two 90-min classes per

week with two exams (one 'midterm' exam on current material and a cumulative final exam), which together determined 100 % of a student's grade. Occasionally, some teachers added homework problem assignments worth 20 % of the grade, basing the remaining 80 % on the midterm and cumulative final exams. Lectures were delivered in a standard lecture hall with fixed seating. Lecturers did occasionally pose questions to the class but were involved in limited interactive in-class work, and although they attempted to make students comfortable about asking their own questions, the lecturers did so only rarely. Usually, teachers lectured with PowerPoint slides and provided a hard copy to each student. Examples were completed by the lecturer and students followed along passively. Usually teachers only had enough time to complete the required content of the lessons. Therefore, students' questions were not encouraged and answered by either repeating the lecture notes or deflecting the question to a future time. In this study, to encourage the participating teachers to promote cooperative learning and student-centredness, especially to delegate part of their authority to students, the researcher instructed the teachers to apply different cooperative learning and student-centred learning techniques in the two phases of the study as detailed below.

### ***5.3.5 Phase 1***

The students were first assigned to four- to five-member groups on the basis of their grades in previous years (this method was not disclosed to the students). Each group included one excellent student, two medium and one low performer. Each group also had a balance of gender and ethnic ratios to minimise possible feelings of isolation among female, male or minority students. The students were asked to work in their groups for the whole semester. The teachers were asked to reduce lecturing and intersperse cooperative learning and other student-centred learning activities. Regarding cooperative learning activities, the strategies employed were based on two prominent approaches, namely, 'Learning Together' of Johnson and Johnson (1999) and 'Group Investigation' of Sharan and Sharan (1992) (cited in Sharan 1994). The 'Learning Together' strategy was chosen to be applied in this study because it is one of the simplest and most widely used of all cooperative learning methods (Johnson and Johnson 1999). It includes 18 steps that are divided into five categories: (a) specifying objectives; (b) making decisions (e.g. about group size and assignments, arranging the room, planning materials and assigning group roles); (c) communicating the task, the goal structure and the learning activity; (d) monitoring and intervening; and (e) evaluating and processing. The 'Group Investigation' strategy was also chosen because it is the most extensively researched and successful of the task specialisation methods (Sharan 1994). The strategy includes six main steps: students break up the topic, assign tasks, carry out their investigation, prepare a final report, present the final report, and teacher and students collaborate in evaluating student learning.

In addition, depending on the nature of each lesson, the teachers were asked to apply some of the student-centred learning activities below:

- *Multiple-choice tests*: The teachers were instructed to prepare short multiple-choice tests that covered content of and beyond each lesson. Each group was asked to quickly complete the tests after each part of the lesson or at the end of each lesson. This aimed to test the students' conceptual understanding.
- *In-class questions*: The teachers posed a more general question to the class and asked the students to discuss with their group members before the teachers solicited responses from several groups.
- *Journal article discussion*: On some occasions, the teachers devoted an entire class period to discussing a recent relevant journal article, which the teachers had provided for the students to read prior to class with a specific set of questions to answer.
- *Case studies*: After covering the key concepts of the chapter (more utilising a question and answer format than lecture), the students read cases from the textbook and then worked in their groups to discuss the case using the questions provided. This was followed by a whole-class discussion.
- *Student presentation with class discussion*: The students prepared a term paper in groups and then gave a class presentation. The students were encouraged to foster a class discussion since 10 % of their presentation assessment depended on their class discussion with good questions as well as answers. From these presentations, the students had the opportunity to practise such skills as analysing any knowledge presented critically, raising their voices, listening and presenting their opinions.

### 5.3.5.1 Data Collection Methods

#### Audiotapes

The teachers were audiotaped twice in the last 2 weeks of each phase. The teachers wore an audio-microphone and they were taped for the full class period (90 min). In addition, a cassette recorder was used to audiotape the discussions within two focus groups in each class. This aimed to identify the verbal interactions of the students to determine how students interacted with each other and with the teacher during lessons.

#### Observations

Observations were applied to all participating teachers and the two focus groups in each class. The teachers and the focus groups were observed once per week by the researcher and an assistant for a period of 30 min. Two groups were chosen from each classroom since Gillies (2004b, 2006) has shown that it is possible to obtain a



representative sample of the students' discourse across classes by sampling the discussions of two groups from each class. To collect data from observations, the researcher used field notes and observation forms because they are the best instruments to collect and document classroom setting, classroom atmosphere and behaviours of the teacher and students in teaching-learning processes (Gay et al. 2006). To ensure the validity of the outcomes, according to Weir and Roberts (1994), a sufficient number of observations must be considered. Therefore, with the time constraints available for this study, each student was observed at least ten times. The time interval in all observation schedules was set as 3 s. This interval was chosen because it is the shortest possible sample interval which allows the researcher to record a behaviour state (Martin and Bateson 2007). Martin and Bateson (2007) also claim that the shorter the sample interval, the more accurate a time-sampled record will be. To make observations reliable, an assistant was employed to simultaneously observe with the researcher (before doing observations, the teachers and the research assistant were trained in the behaviours to observe).

### 5.3.5.2 Analysis

#### Audiotapes

##### *Teachers' Verbal Behaviours*

All audiotapes were fully transcribed first. Then, the researcher identified the teachers' verbal behaviours based on a schedule adapted from Gillies (2004b, 2006) and Cohen and Intili (1982) but modified to suit the purpose of this study. The schedule identified five categories of the teachers' verbal behaviours. These behaviours included demonstrating control (i.e. instructing and directing); extending the activities (i.e. explaining the current lessons and giving comments on students' previous work, current work, skills and group work); disciplining (i.e. controlling students' behaviours, reprimands directed at students); mediating learning (i.e. paraphrasing to assist understanding, prompting, using questions to challenge and scaffold children's learning, summarising key ideas); and encouraging (i.e. praising students, expressing spontaneous emotion). These categories of verbal behaviours were coded according to frequency across recorded class session and represent 100 % of each teacher's talk during that session. A total of 36 h of teachers' verbal behaviours was taped across the two phases (i.e. 12 teachers were taped twice over a period of 90 min). An assistant, who was experienced in coding discourse, coded a common 3 h of audiotape. When there were any coding disagreements, the assistant and the researcher reviewed their coding until there was 100 % agreement.

##### *Students' Verbal Behaviours*

All audiotapes were also fully transcribed, and the researcher identified the students' verbal behaviours on a schedule adapted from Gillies and Haynes

(2011) and Cohen and Intili (1982) to capture the verbal behaviours that students used during the recorded student-centred learning lessons. The schedule identified eight categories of the students' verbal behaviours: task-related talk (i.e. students talk about their work or other work, respond to the teacher's question); non-task-related talk (i.e. students talk about their families, other students' behaviours, whether or not they like other students, or what they are going to do after school today); engages with others around the topic (i.e. students affirm another student's response, make a statement on the topic to extend discussion, engage in sustained exchanges on the topic); interrupts (i.e. students use negative disruption to the discussion); short responses (i.e. students' responses that are not elaborated); elaborations (i.e. students provide detailed help including reasons and justifications and extend another students' response to make it more substantive); questions (i.e. students ask each other tentative, challenging, open and closed questions); and directions (i.e. students guide each other new ideas). Students' verbal behaviours were coded according to frequency across the recorded group session. A total of 96 h of students' verbal behaviours (24 focus groups were taped twice over a period of 90 min) was collected across the two phases. The same assistant (mentioned previously) coded a common 6 h of students' verbal behaviours and inter-rater agreement was 100 %.

## Observations

### *Teacher Observations*

The observations aimed to count the number of different individuals contacted by each teacher during each 30-min period and the language used by the teachers in speaking to those individuals (see Appendix 1 for the observation form).

### *Student Observations*

Observations were only applied to two focus groups in each class. The observation schedule was adapted from Cohen and Intili (1982) to measure behaviour states. The schedule had five behaviour state categories which are described in Table 5.2.

These behaviour patterns were coded for frequency, and the frequency was converted into percentage to compare the results of the two phases.

## 5.3.5.3 Results

### Audiotapes

Teachers' verbal behaviours were coded and the frequency of each type of these verbal interactions is presented in Table 5.3.

Similar, verbal behaviours of the students were coded and the frequency of each type of these verbal interactions is presented in Table 5.4.

**Table 5.2** Categories in the behaviour states schedule

Categories	Behaviour states
1. Working with other students	Task-oriented group behaviour: talking with or listening to other students
2. Noncooperative behaviour	Competitive behaviours to exclude others: opposition or criticism
3. Individual on-task behaviour	Work alone on task
4. Off-task behaviour	Move about or engage playfully with classmates; do not either participate in group activities or work individually
5. Waiting for the teacher	Stop working and either raise hands or call the teacher for help

**Table 5.3** Frequency of teachers' verbal behaviours in Phase 1

Behaviours	<i>n</i> = 12 Total
1. Demonstrating control (i.e. instructing and directing)	28
2. Extending the activities (i.e. explaining the current lessons and giving comments on students' previous work, current work, skills and group work)	8
3. Disciplining (i.e. controlling students' behaviours, reprimands directed at students)	15
4. Mediating learning (i.e. paraphrasing to assist understanding, prompting, using questions to challenge and scaffold children's learning, summarising key ideas)	22
5. Encouraging (i.e. praising students, expressing spontaneous emotion)	14

**Table 5.4** Frequency of the students' verbal interactions in the focus groups

Behaviours	<i>n</i> = 120 Frequency
1. Task-related talk (i.e. students talk about their work or other work, respond to the teacher's question)	74
2. Non-task-related talk (i.e. students talk about their families, other students' behaviours, whether or not they like other students, or what they are going to do after school today)	29
3. Engages with others around the topic (i.e. students affirm another student's response, make a statement on the topic to extend discussion, engage in sustained exchanges on the topic)	59
4. Interrupts (i.e. students use negative disruption to the discussion)	38
5. Short responses (i.e. students' responses that are not elaborated)	29
6. Elaborations (i.e. students provide detailed help including reasons and justifications and extend another students' response to make it more substantive)	19
7. Questions (i.e. students ask each other tentative, challenging, open and closed questions)	21
8. Directions (i.e. students guide each other new ideas)	27

**Table 5.5** Percentage of behaviour states of the students in the focus groups

Behaviours	<i>n</i> = 120 (%)
Working with other students	45
Noncooperative behaviours	9
Individual on-task behaviours	23
Off-task behaviours	11
Waiting for teacher	12

### Observations

Behaviour patterns were coded for frequency and the frequency was converted into percentage and is presented in Table 5.5.

### More Autonomy

On the surface, it was seen that compared to the traditional teacher-centred lessons, there were more discussion practices and active tasks. In each lesson, the students were asked to do several group practices such as discussing and debating instead of listening to the teacher passively. This change was reflected in the observation findings that show that the students had 45 % of their behaviour states classified as 'working with other students'. This is the highest percentage compared to other states. Regarding the teachers, they reduced their lecturing remarkably and tried different techniques to mediate the students' learning. For instance, they often questioned what the students presented in order to challenge their knowledge. They also gave students useful hints to develop new ideas. After each part of the lesson, the teachers reinforced the students' understandings by summarising key ideas. These mediating learning behaviours were captured in the audiotape findings when they revealed that the teachers had 22 behaviours classified as mediating the students' learning. This was the second highest number compared to other behaviours.

However, after undertaking a deeper investigation, the researcher found that in Phase 1 cooperative learning and student-centredness had not actually been adopted and applied properly by both the teachers and students. There were at least three points demonstrating this argument. The first was that the teachers had not truly changed their authoritative teaching style and empowered students to engage in active learning. The second was that the teachers did not promote the students' deep knowledge. The last was group members were not consistent in cooperating on group tasks.

### The Teachers Still Performed Authoritative Teaching Styles

There was, in fact, no dramatic change in teaching and learning activities. It was still textbook-based and the teachers dominated the process. The teachers followed

the same format in every lesson: explaining and illustrating the new lessons, setting exercises, leading the students to complete the tasks in the textbook, guiding the pace and content of each activity and finishing the lessons with a traditional paper-based test to assess the students' learning. It seemed that the teachers were still the only knowledge provider whenever the students learned new lessons. When working in groups, the students were often required to review those sections that had been learned and explained by the teachers with the main purpose of helping the students memorise the text better. The teachers and students did not intend to use cooperative learning and student-centred learning activities as a tool to promote the students' creative and high-level knowledge. Thanh-Pham (2011b) mentioned this point in her study when she found that Vietnamese teachers and students did not see cooperative learning as effective in terms of helping the students understand new lessons and come up with new ideas. Her participants only saw cooperative learning groups as an effective activity to review previous lessons so that the students could save time for other courses. Similar findings were found in Lee et al. (1999) when they conducted a study on the impact of cooperative learning on academic achievements and attitudes toward the subject and classroom climate of Singaporean primary students. This study found that cooperative learning methods were only beneficial for maintaining positive attitudes toward the subjects and for lower-ability students especially on improving their test scores on recall items. Findings of these empirical studies are surprising, as they revealed how CHC teachers and students perceived the functions of cooperative learning. This contrasts with the beliefs of many Western cooperative learning researchers who have agreed that one of the main functions of cooperative learning is to help students develop their own knowledge and encourage them to become creative (Johnson and Johnson 2001).

The domination of the teachers on the learning process in the present study was also reflected by the high number of 28 instructing and directing verbal behaviours used by teachers when talking to the students during the lessons that were analysed (this is the highest number compared to other verbal behaviours). Samples of these controlling verbal behaviours were 'What you need to do now is to find a suitable term to describe . . .'; 'I am not sure with this answer. You should find the figurative meaning of . . .'; 'Why don't you take a look at the previous lesson to find some relevant concepts'; 'Close your eyes and try to imagine you are lost in a forest'; and 'You guys should look at your neighbour group's presentation to see the format'. Compared to encouraging verbal behaviours, surprisingly the teachers used instructing and directing verbal behaviours at twice the frequency than they praised and expressed spontaneous emotion to encourage the students. This finding agreed with results of a study conducted by Gillies (2004b) who found that when teachers engaged in a large number of lecturing and disciplinary verbal behaviours, they often used fewer encouraging and mediated-learning behaviours and reverse.

Because the teachers were the only ones who taught the new knowledge and decided the right answer, when observing in the class, the researcher found that the students seemed very dependent on the teachers whenever they faced a problem. They always waited for the teachers to come over to confirm their choice of difficult multiple-choice questions, to be a referee if their group had conflicts, to correct

information if some group members presented new information and to model the solving process of a problem. This was why the observation findings show that 12 % of the students' behaviour patterns involved 'waiting for teacher' behaviours. The hierarchical authority that the teachers exerted over the students was also seen through the way the teachers responded to the students. Whenever the students raised questions or expressed their own opinions, the teachers seemed willing to listen but rarely encouraged the students to explore the answers themselves. The teachers often adopted many strategies to get the students to follow their decisions. For instance, when the teachers talked, the students mandatorily stopped all they were doing to listen to the teachers. When the students expressed their own ideas or offered a new way to solve a problem, the teachers listened but then further advised them to follow the standard formats that would be used in exams.

In sum, although the teachers did appear to promote the students' autonomy, they were still the main instructor who decided almost all learning activities in the class, and the students did not have much power in choosing what they liked or disliked doing. Such an authoritative teaching style prevented the students from actively engaging in the student-centred learning process significantly because Prince (2004) and Di Vesta and Smith (1979) claim that the defining feature of active student-centredness is to promote thoughtful engagement on the part of the student and enable students to develop deep understanding of what is learned; simply introducing activities into the classroom and requiring students to practise does not mean implementing active student-centred learning. If the students were limited to only learn facts and low-level knowledge, they could do this, even do better, in teacher-centred classes because one of the main features of Asian teacher-centred classrooms is to train students with skills of mastering the content and recalling facts (Pratt 1992).

### The Teachers Did Not Extend the Students' Activities and Promote High-Level Knowledge

One of the advantages of cooperative learning and student-centred pedagogies is that the students are given opportunities to teach and share information with each other, which enables them to not only review the current lesson but also achieve deeper understanding and learn new knowledge (Alexander et al. 1995; Brooks 1990; Biggs 1999; Dole and Sinatra 1998). Johnson and Johnson (1999) even claim that cooperative learning could assist students to exchange information and create new knowledge that may exceed the teacher's knowledge. Therefore, in the present study when instructing the teachers to shift from teacher-centredness toward cooperative learning and student-centredness, the researcher expected that the teachers could help the students develop complex knowledge by extending their activities such as challenging students with argumentative, comparative and analytic questions or scaffolding their ideas by reminding them about prior knowledge or simplifying tasks and then encouraging them to develop explanations of and connections between new and previous information. To achieve this expectation,

before each lesson the researcher and the teachers worked together to prepare a list of complex questions which would provoke further enquiry by the students. The teachers were also advised to try to give students specific feedback to previous and current lessons as much as they could. This aimed to help the students review what had been learned and develop the capacity of connecting information systematically.

However, the result shows that these recommended teaching behaviours were mostly ignored. The teachers rarely used the list of complex questions prepared beforehand to extend the students' activities as well as scaffold their ideas. The audiotape results reported that the teachers had only eight verbal behaviours classified as 'extending the activities' (i.e. explaining the current lessons and giving comments on students' previous and current work, skills and group work). This was the lowest number compared to other verbal behaviours. This may have happened because all teachers spent a lot of time moving around the classroom to answer individual students' questions and solve group conflicts. Whenever the students had a problem (i.e. getting stuck with a question, being confused about the ideas presented by their partners), they raised their hand to call the teacher. To respond to all students' enquiries, the teachers often responded to each student very shortly and quickly by telling them facts or directions but not challenging them with complicated questions. After reviewing the audiotape transcript of a lesson, the researcher found that half of the interactions between the teachers and students were over in less than 10 s. Another sign was the teachers tended to use a 'short version' of cooperative learning models. Although the two teachers were trained with steps and activities of the cooperative learning models they were applying carefully, they rarely followed the original procedures properly. Instead, they tended to either overpass or simplify time-consuming activities. For instance, instead of giving the students enough time to do deep investigation of what has been learned and make a formal presentation in front of the class, the teachers usually asked each group to quickly summarise key ideas and then appoint a group representative to read the summary out loud. Besides, almost no teachers applied peer assessment activities. The role of evaluating individual students and groups belonged entirely to the teachers.

The main reason explaining why the teachers did not spend much time on group work and students' questions was that both the teachers and students were very concerned about completing all lessons in the curriculum to prepare for coming exams. No matter what and how the teachers taught, they needed to complete the textbook because all exams were designed based on these textbooks. There was no occasion during the lessons observed where the students had any choice of the content, and most of their work, including topics for group practice, was drawn directly from the textbooks that are published by the Education Publishing House (Nhà Xuất Bản Giáo Dục-NXBGD), under the control of the MOET. The NXBGD's books are obligatory in all schools, public or semipublic ones. At the university level, there are different books, but there are still official ones which are used for reference. Moreover, alternative books are also controlled or vetted by the authorities through a University Committee and published by the University Publishing Houses. If the students want to get high scores, they need to learn from, even

memorise, these textbooks. Therefore, to ensure everyone understood the lessons correctly and could have right answers on the exam, the teacher found that a quick way was a 'right answer' approach. This explained why they often told the students the right answers directly instead of letting them work out their own answers.

Gow and Kember (1990) and Morris (1985) claim that CHC people usually measure one's success depending on his achievements; a teacher is called good if he/she has many students who obtain high scores on public exams. CHC teachers believe that they can teach most effectively with an expository style, in which they lecture and provide students with the information which they predict will be tested in public exams. To get high marks on the test, students only need to memorise lessons in a systematic and organised way and to avoid deep or complicated issues except in so far as they related directly to professional applications of knowledge (Biggs and Watkins 1996). It seems that the learning concepts in CHC nations are still contained in the Confucian classics, which are 'studied, memorized, and then expounded at the examinations' (Hu 1960: 412).

### Poor Cooperation Among the Students

At first glance, the results obtained from the audiotapes and observations showed that the students worked cooperatively (they had a high number of 59 verbal behaviours classified as 'engages with other around the topic' and 45 % of behaviour states classified as 'working with other students'). However, there was evidence demonstrating that the students actually performed poorly cooperating on group tasks. For example, their behaviour states involved a high percentage of 23 % 'individual on-task behaviours'. This indicated that there were many moments group members did not work with their partners on the joint tasks but accomplished the work individually. The audiotape results also show that the students used many noncooperative types of language used while discussing in their group. Specifically, they performed 38 interruptive verbal behaviours to disrupt group discussions. Samples of such interruptive behaviours were 'Sorry. I don't think so'; 'If you think you're right, please go ahead'; 'That does not make any sense in this situation Lan'; and 'Don't blame me. It happened [the group was given a low mark on a joint assignment] because you guys did not fulfil your tasks properly'. It was noted that, among 21 % of questioning behaviours that students performed during the lessons audiotaped and analysed, the challenging questions accounted for a larger percentage than tentative and open and closed questions did. Samples of these challenging questions were 'I need some clarification on your point. Do you mind Hoa?'; 'Do you have more evidence for this?'; and 'It seemed hard to convince the teacher unless you give a good conclusion. Would you think you can?' This ratio demonstrated poor cooperation among the students because Gillies (2006) and Thanh-Pham (2011a) have found that when students cooperated well, they tended to use more tentative questions to gauge each other's understanding than those questions to challenge each other.



In addition, it was easily seen that there was a big gap in interdependent cooperation between high achievers and low achievers. While observing in the class, the researcher noticed that each group usually had one to two active members (usually bright students) talking a lot during group discussions and who were always prepared to call the teacher for help if the group faced a problem. The remaining two to three less able students often listened to other partners passively or gossiped about non-related tasks. This might be the reason why the non-task-related talk (i.e. students talk about their families, other students' behaviours, whether or not they like other students, or what they are going to do after school today) in the analysed lessons was quite high (29 times). Besides, the researcher saw that the bright students appeared impatient and reluctant to listen and explain to low-achieving students. Whenever low achievers asked, bright students did not elaborate or explain to make their ideas more substantive but tended to use short answers by telling low achievers facts or simply saying 'yes' or 'no'. The audiotape results supported this finding, showing that the students used short answers more frequently than elaborations and directions (29 times compared to 19 and 27 times, respectively). This was evident that the students were involved in unproductive interdependent interactions because Vygotsky (1978) argues that human cognitive development is differentiated into two stages, lower and higher mental functions. Lower or elementary functions are our natural mental abilities developed in normal human encounters. They comprise elementary perception, memory spontaneous attention and dynamic characteristics of the nervous system. This is the actual developmental level that the child can develop independently without direct intervention from others. By contrast, higher mental functions develop through social interactions, being socially or culturally mediated. They include abstract reasoning, logical memory, language, voluntary attention, planning and decision making. This is the potential development that only occurs under adult guidance or in collaboration with more capable peers (Vygotsky 1978). The most effective strategy that helps students develop this potential development, according to Wood et al. (1976), is scaffolding. Scaffolding is when more capable students remind students about prior knowledge or simplify tasks and then encourage them to develop explanations of and the connection between new and previous information (DeVillar and Faltis 1991). In doing so, students are provided with an opportunity to extend their current skills and knowledge. According to this argument, when high-achieving students in the present study tended to give low-achieving students only short and direct answers but did not scaffold and elaborate their ideas, this meant that less able students were not given much chance in group work to improve their cognition.

A question raised now would be what caused poor cooperation among the students in the present study? There might be two reasons. First, the students might not have been tied to each other by the types of tasks that strongly required their interdependent cooperation like high-level and complicated tasks. This seemed reasonable because it was seen that most activities set out in the class and on exams required factual and reviewed knowledge instead of the knowledge beyond the textbook and the teacher's lectures. Various researchers have found that these activities did not encourage students to interact and apply problem-

solving and learning because students are more likely to interact with each other when they participate in ill-structured tasks that are open and discovery-based where there are no correct answers or set procedures to follow. Gillies (2006) claims that when students work on these complicated tasks, they are more likely to share ideas and information as they seek to resolve the problem at hand than when they work on well-structured tasks where there is a set procedure to follow or a correct answer to obtain so students have little need to discuss how to proceed. Ill-structured group tasks encourage student interaction, and it is this interaction that Cohen (1994) and Cohen et al. (2002) have found to be consistently related to follow-up achievement gains.

Thanh-Pham (2013) further found that the tasks that required low-level knowledge conditioned high- and low-ability students to perform *poor* cooperation because high achievers understood that they could find the answer from the text and the teacher's lectures, so often ignored low achievers. These students preferred to work on their own work. If they were asked by low achievers, they tended to react by raising challenging questions. In return, low achievers did not feel brave enough to ask for high achievers' explanations because they were usually not encouraged to do that (better students often ignored them). Consequently, these students were placed in a 'jobless' situation where they had nothing to do but listened passively to others or 'fell to sleep'. This explained why the students (especially the less able students) were often involved in a large number of individual and off-task behaviours.

The second reason causing poor cooperation among the students in the present study might be that the students were allowed to contact the teacher for help anytime when they needed. This situation made bright students understand that they should better ask the teacher for help but did not have to waste time discussing with less able students (because low achievers were often unable to solve bright students' problems). Therefore, these high achievers had more than a chance to dominate group discussion and ignore less able students. By contrast, low-achieving students were conditioned to become passive learners because they were often left behind in group discussions and too shy to ask the teacher if they did not understand. As a result, many low-achieving students turned to gossip about non-related task topics, while bright students were working.

To summarise, in Phase 1 although cooperative learning and student-centred activities were brought to the classes, the teachers and students had not actually been involved in these practices effectively. The teachers had not empowered the students to participate in independent learning. Therefore, in Phase 2 the researcher organised several workshops to review cooperative learning activities that the teachers had performed in Phase 1 and carefully analysed and discussed what remained ineffective and needed to change in Phase 2. To persuade the teachers to make the changes, the researcher carefully explained the consequences that could affect students' learning if the changes were not made. To help the teacher have a better view of how to make the changes, the researcher used a live demonstration. Sparks (1983) concurs this technique is important in effective staff development when acquiring a new skill or concept because this enables the teachers to see or

visualise the action in practice. The researcher used the teachers as an actual class, pointed out those activities that had not been done properly, explained and modelled the right solution and asked the teachers to practise together. Noticeably, the researcher tried to use good activities that had been performed by the teachers in their lessons in Phase 1 to illustrate her explanations. This was a cultural technique because CHC people's desire for demonstrating individual ability has been reported in other studies (e.g. Dirksen 1990; Flowerdew and Miller 1995). When CHC people work in a team, they have very strong hidden competition. If one member's achievement is praised publicly, other members will double their efforts to show the public that 'I can do better'. The researcher took advantage of this competitive cultural value and assumed that when a teacher was complemented publicly, other teachers would maximise their creative and imaginative capacities to work out more effective ways to better the remaining problems. At these workshops the teachers were also encouraged to verbalise their thoughts about the problems hindering their implementation of cooperative learning activities. The researcher carefully noted their comments and took them into consideration when designing changes in Phase 2.

After reviewing all audiotaped and observed lessons in Phase 1 plus the teachers' comments obtained from the workshops, the researcher worked out major changes that needed to be made in Phase 2 as below.

1. The teachers were advised to focus on developing the students' deep and complex knowledge. It was emphasised that the teachers needed to get the students actively engaged in the learning process so that they could develop high-level knowledge. To achieve this goal, the teachers must delegate more authority to the students by limiting how much direct and detailed instruction is given but maximising scaffolding their ideas, giving hints and facilitating group discussions. To give the teachers more time to implement these time-consuming tasks (as discussed in aforementioned sections, the teachers tended to design low-level knowledge assessing activities and require the students to learn recalled and factual information because these activities took less time than high-knowledge assessing activities), the teachers were advised to move from supervising individuals to instructing groups. While observing in Phase 1, the researcher found that the teachers wasted a lot of time supervising the students individually. The analysed lessons from the audiotapes reported that when responding to the students, the teachers rarely used 'các em' (plural noun 'you') but mostly used 'em' (single noun 'you'). This means that the majority of their interactions took place with individual students but not with a group.

In order to give the teachers more time to be able to design complex learning activities to promote the students' argumentative, analytic and comparative knowledge and to force the students to be more active in the learning process, the students were required to develop complex questions to challenge each other by themselves instead of receiving these questions from the teacher as happened in Phase 1. The students were asked to apply the *Ask To Think Tel-Why* (King 1997) with five types of questions including review questions ('Describe in your

own words...'); probing questions ('Tell me more about...?'); hint questions ('Have you considered...?'); intelligent-thinking questions ('How are ...and ...the same and different?'); and self-monitoring questions ('Have we covered all the ideas we need to?') to take turns questioning each other during group discussion. The advantages of these types of questions are that they help students not only summarise and elaborate on information but also to ask cognitively challenging questions by drawing on previous knowledge and understandings and connecting them to new information and ideas to construct new knowledge (Gillies 2007). The teachers were asked to model these questions to the students so they understood how they could use them to elicit different types of information.

2. To prepare the students to develop better interdependent cooperation, new regulations about contacting the teachers were set up. Before reaching the teacher, the students were required to first discuss with other group members thoughtfully. If the whole group could not solve the problem, a group member (working as a secretary) took note the problem, and then when the teacher came over to help, the teacher randomly appointed a group member to present the problem loudly. This technique required all group members to share information equally and work with each other wholeheartedly to ensure that everyone understood group discussions and problems so that any randomly called member could be able to answer the teacher's questions. This was a technique to increase positive interdependence, one of the five main components of cooperative learning, among group members. This also helped give less able students more than an opportunity to improve their understanding by actively engaging in group discussions because Vygotsky (1978) claimed that participating in social interaction only, via watching or observing passively, does not help improve cognition as much as actively representing thinking/ideas in language. The crucial step which children need to develop independent intellectual functioning is to use speech as a means of making sense of experiences with other participants (Renshaw 1992).
3. In addition to changing teaching and learning activities as discussed above, assessment practice was also redesigned. The teachers were asked to carry out formative assessment during each class period to gauge the understanding level of the class, and also as opportunities for discussion and peer instruction. This formative assessment could be multiple-choice tests, short essays or group projects and accounted for 30 % of the final grade. The teachers and students were encouraged to see assessment as a tool to promote ongoing learning but not a method to evaluate the ended outcomes.
4. Last but not least, the teachers were also encouraged to use more complimentary verbal behaviours to encourage the students to engage in cooperative learning and other active learning because, as Turner et al. (2003) found, students were more motivated to learn when their teachers used language that stressed strong positive affect about learning and conveyed positive expectations to their students. In another in-depth study, Turner and Patrick (2004) found that teachers' communicative behaviours did affect students' engagement with

learning. They especially emphasised that teachers' encouragement and support had a great influence on students' patterns of participation. In the CHC context, this type of verbal behaviours performed by the teacher could have a stronger effect on students because there was evidence showing that CHC students were very much influenced by appraisals. Niles (1995) found that for Asians, social approval motivation could be the most potent force in generating the push toward higher levels of achievement. Therefore, to compliment students' good work, teachers do not often give students an extra point or reward them materially but frequently used verbal approval and disapproval. This reward structure is rather different to the awarding method of giving extrinsic rewards (i.e. material rewards or extra grades) recommended by some cooperative learning researchers (usually those who agree with the behavioural learning theory). For instance, when Slavin and his associates developed the cooperative learning model, namely, Cooperative Integrated Reading and Composition (CIRC), they emphasised that material reward was an important factor contributing to the success of this model; thus educators need to involve this procedure in the application process. They suggested that better teams should be rewarded a certificate based on the average performance of all team members to recognise their achievement.

Ironically, there is a tendency among Asian teachers to rarely encourage students with positive appraisals of their performance. For instance, in their study, Jin and Cortazzi (1998) found that Chinese teachers seem to use praises very sparingly and only when something is exceptional. In another comparative study of children in the USA and Japan, Ban and Cummings (1999) discovered that American teachers tended to award much higher grades to students and often praised far more frequently than Japanese teachers. In the present study, it was noticed that in Phase 1 the teachers used only 14 encouraging verbal behaviours. This was the second smallest number compared to other types of verbal behaviours. Therefore, to motivate the students to engage in cooperative activities, in Phase 2 the teachers were instructed to compliment the students more frequently. If teachers empowered students to actively engage in student-centredness and highly and complementarily appreciated their self-learning work, it also meant that teachers delegated part of their authority to students.

### **5.3.6 Phase 2**

#### **5.3.6.1 Procedures**

Entering Phase 2, all teaching and learning activities were designed in the same format with that in Phase 1 but involved changes as discussed above.

**Table 5.6** Frequency of teachers’ verbal behaviours in Phase 2

Behaviours	<i>n</i> = 12 Total
1. Demonstrating control (i.e. instructing and directing)	18
2. Extending the activities (i.e. explaining the current lessons and giving comments on students’ previous work, current work, skills and group work)	28
3. Disciplining (i.e. controlling students’ behaviours, reprimands directed at students)	12
4. Mediating learning (i.e. paraphrasing to assist understanding, prompting, using questions to challenge and scaffold children’s learning, summarising key ideas)	35
5. Encouraging (i.e. praising students, expressing spontaneous emotion)	22

**Table 5.7** Frequency of the students’ verbal interactions in the focus groups in Phase 2

Behaviours	<i>n</i> = 120 Frequency
1. Task-related talk (i.e. students talk about their work or other work, respond to the teacher’s question)	70
2. Non-task-related talk (i.e. students talk about their families, other students’ behaviours, whether or not they like other students, or what they are going to do after school today)	20
3. Engages with others around the topic (i.e. students affirm another student’s response, make a statement on the topic to extend discussion, engage in sustained exchanges on the topic)	77
4. Interrupts (i.e. students use negative disruption to the discussion)	25
5. Short responses (i.e. students’ responses that are not elaborated)	23
6. Elaborations (i.e. students provide detailed help including reasons and justifications and extend another students’ response to make it more substantive)	27
7. Questions (i.e. students ask each other tentative, challenging, open and closed questions)	18
8. Directions (i.e. students guide each other new ideas)	20

**5.3.6.2 Results**

**Audiotapes**

Verbal behaviours of the teachers were coded and the frequency of each type of these verbal interactions is presented in Table 5.6.

Verbal behaviours of the students were coded and the frequency of each type of these verbal interactions is presented in Table 5.7.

**Observations**

Behaviour patterns were coded for frequency and the frequency was converted into percentage and is presented in Table 5.8.

**Table 5.8** Percentage of behaviour states of the students in the focus groups in Phase 2

Behaviours	<i>n</i> = 120 (%)
Working with other students	69
Noncooperative behaviours	8
Individual on-task behaviours	15
Off-task behaviours	12
Waiting for teacher	6

### Changes on the Teachers' Side

In general, it was clear from the pattern of interactions that emerged that the teachers engaged in more verbal behaviours that are generally regarded as helpful and supportive of group endeavours than they did in Phase 1. They had more time to listen and observe the students' discussions and used various techniques to extend their activities. The teachers especially paid attention to connecting the content of the current and previous lessons, challenging the students' questions to enable them to find their own answers instead of telling them the right answer and giving hints to help them develop complicated questions to ask each other. It was a surprise to see a dramatic increase in 'Extending the activities' verbal behaviours that the teachers performed in Phase 2 (28 in Phase 2 compared to 8 in Phase 1). Similarly, the teachers' mediating learning and encouraging verbal behaviours also increased markedly in Phase 2 (from 22 in Phase 1 to 35 in Phase 2 and from 14 in Phase 1 to 22 in Phase 2, respectively). It was very nice to see that the teachers created a very different studying atmosphere. They complimented the students very frequently by emotionally encouraging words that were never or rarely seen in Phase 1. Some samples of these words were 'Good. What you are saying shows that you've got what I said'; 'Yeah. That's what I am looking for'; 'You see you've discovered a couple of things that the author figuratively implies and only smart readers could understand'; 'I hope other students could reach your level of understanding'; and 'Right. If you consider looking at this paragraph, you may be able to find out why your partner has that conclusion'. Galton et al. (1999), Mercer et al. (1999) and Wegerif et al. (1999) claim that use of such language is important for learning because it enables ways of scaffolding dialogues so that students learn to engage with others on the issues at hand. Noticeably, a couple of conversations in the audiotaped lessons revealed how powerfully the teacher's compliments could enable the students to develop their understanding to a new level. Two exemplary extracts were:

#### ***Extract 1***

*The teacher (T):* Would you think the text could be understood more easily if they are summarised via dots?

*The student (S):* I've tried to present it by a graphic that could show the numbers very nicely and clearly. You can see.

(continued)

**Extract 1** (continued)

*T:* Fantastic! I never thought that you could find this way.

*S:* Would you think we could use this graphic to compare the incomes between this month and the previous and coming months.

*T:* Brilliant! This is the best method to summarise what we have learned in these lessons.

In this conversation, the teacher's compliment motivated the student to think about an approach that helped solve a complicated issue and was beyond the teacher's requirement and expectation. In this incident, the teacher started to gauge the student to think creatively.

**Extract 2**

*The teacher (T):* How about this paragraph? Does it have anything you guys are looking for?

*The student (S):* I've scanned through it and saw the hand embroidery industry is currently threatened by both internal and external factors.

*T:* What means internal and what means external?

*S:* Internal factors mean those factors coming from Vietnam and have influence on the development of hand embroidery industry (i.e. the development of new painting industries, the less interest in working in the hand embroidery industry of young Vietnamese). External factors mean those factors coming from overseas (i.e. the popularity of paintings imported from China, the decrease in the number of travellers in Vietnam recently).

*T:* Good, good. Does everyone hear this? This is a creative classification.

*S:* If we classify all factors in this way, we can see that compared to internal factors, external factors are fewer but more threatening. Do you think so?

*T:* Very clever and clear.

Similar to Extract 1, in this conversation the teacher's praise motivated the student to suggest a creative classification and comparison that were beyond what the teacher was looking for.

The researcher also found that when the teachers used mediating-learning and encouraging verbal behaviours, their manner and tone became very soft, friendly and personal. The teachers often smiled and joked with the students when listening to their answers. In contrast to the increase in verbal behaviours that were seen as factors strengthening group's cooperation as discussed above, the teachers' verbal behaviours involved fewer controlling and disciplining verbal behaviours (18 in Phase 2 compared to 28 in Phase 1 and 12 in Phase 2 compared to 15 in Phase 1, respectively). These verbal behaviours were regarded as authoritative behaviours that did not help empower students and promote teamwork cooperation.



Importantly, in Phase 2 the observations provided some hints showing that the teachers were willing to empower the students to develop their organisational ability. They no longer ran around to manage group conflicts and answer the students' questions. Instead, before each group task, it was clearly explained to the students what they needed to do and the teacher only examined the final product provided by the group leader. The researcher sometimes had informal talks with the teachers during the lesson breaks. Some teachers expressed the idea that they started to realise that to gauge the students' high-level cognition and teach them the knowledge beyond the text, they should only focus on facilitating the students' understanding and reduce their involvement in managing group activities such as controlling the noise, arranging students' seats and assigning tasks to groups or group members. In one conversation, a teacher stated that letting the students organise their group activities gave her a lot of time to redesign simple tasks in the textbook to make them more complicated so that the students could only solve these tasks if they understood the text deeply. In general, although the students were still mainly required to follow the tasks designed in the textbook instead of choosing their own, changes in the teachers' practices did appear to promote the students' autonomy. Littlewood (1999) claims that by this method, the teacher has given students a sense of 'reactive autonomy' that 'does not create its own directions but, once a direction has been initiated, enables learners to organise their resources autonomously in order to reach their goal' (p. 75). Interestingly, to encourage the students to better each other's work, the teachers strongly encouraged critical judgements. They even gave bonus marks to those individuals and groups who provided most high-qualified feedback. This action reflected a significantly radical change because as Pratt (1992) and Saito and Fujita (2004) claim criticism is traditionally not encouraged in CHC classes.

### Changes on the Students' Side

It was interesting to see that the students' language patterns also had a big change. Their verbal behaviours involved fewer behaviours that are seen as unsupportive of promoting group cooperation and more behaviours that reflect effective and productive interactions among group members. Specifically, the students reduced questioning, short responses and interrupting verbal behaviours (from 21, 29 and 38 in Phase 1 to 18, 23 and 25 in Phase 2, respectively). In contrast, they increased elaborative verbal behaviours from 19 in Phase 1 to 29 in Phase 2. It appeared that the change in the students' verbal behaviours might have partially emerged from the types of reciprocal interactions that the teachers adopted when interacting with the students. Palinscar and Brown (1988), Palinscar and Herrenkohl (2002) and Gillies (2006) noted that when teachers use strategies and questions to encourage students to develop deep understandings about an issue, students will need to use complex knowledge like argumentative, elaborative and analytic skills to find the answer. According to the authors, the teachers' mediated-learning interactions may have triggered similar responses in the students

so they learned through social modelling to provide more explanations and detailed responses to other students' requests for help or their perceived need for help.

The observation also revealed that productive cooperation among group members had a marked increase in behaviours classified as 'Working with other students' (from 45 % in Phase 1 to 69 % in Phase 2). In contrast, 'Noncooperative behaviours' and 'Individual on-task behaviours' categories decreased (from 9 % in Phase 1 to 8 % in Phase 2 and from 23 % in Phase 1 to 15 % in Phase 2, respectively). Surprisingly, the regulation forcing students to work with each other before seeking assistance from the teachers seemed to have a very influential affect on the students because compared to Phase 1, the students engaged in only half of 'Waiting for teacher' behaviours (6 % in Phase 2 compared to 12 % in Phase 1).

### 5.3.6.3 Discussion

To implement cooperative learning in CHC classrooms successfully, there must be changes at different levels. Of ultimate importance, the teachers' ability to change their teaching conceptions and classroom practices in order to adopt cooperative learning and student-centred approach is crucial in mediation and bringing about success of constructivist learning reform. The success of the reform largely depends on the teachers' willingness to change their traditional beliefs of teaching and adopt more learner-centred approaches with a new focus on development of generic skills. Richards (1998) indicates that what teachers think and believe plays a role in decision making and judgement, class structure, activities and actions in the classroom. Pajares' interpretive review concerning teachers' beliefs (1992) supports Richards's statements that 'the beliefs teachers hold influence their perceptions and judgment, in turn, affect their behaviour in the classroom, or that understanding the belief structures of teachers and teacher candidates is essential to improving their professional preparation and teaching practices' (p. 307).

Hence, to promote cooperative learning in CHC classrooms, the key issue that reformers need to address is how to change CHC teachers' beliefs and conceptions about traditional teacher-centredness. Beliefs are comparatively static, and the core of the beliefs is difficult to change, but not impossible (Nespor 1987; Peacock 2001; Rath 2001). Existing literature has shown that there is some possibility that teachers' beliefs may change due to certain conditions. For instance, Freeman (as cited in Peacock 2001) posits that teachers' ways of teaching can be influenced by teaching methods that they learn through their teacher-training course. Horwitz (1985) also indicates that prospective teachers may develop some beliefs in the methodology course they take. In more detail, Larsen-Freeman (1999) explains that learning to teach is a developmental process and teaching is more than following a recipe. According to Larsen-Freeman, a method that a teacher uses in class is going to be shaped by a teacher's own understanding, beliefs, style and level of experience, so it is a representation of the integration of his or her thoughts, beliefs and actions. Larsen-Freeman points out that methods are changeable in practice because when teachers become more experienced, they may have different views on a

particular method and what they need is to cultivate their ability to show their understanding through the use of their own creation of methods with their intention. This view is compatible with the concepts described in Vygotsky's cultural-historical theory.

In essence, the aforementioned arguments imply that a possible method to enable CHC teachers to shift from permanently adhering to teacher-centredness to adopting more cooperative learning and student-centred activities is to train them in workshops. Researchers worldwide advocate that training teachers in cooperative learning is essential and that the cooperative learning programme should commence once sufficient training has taken place (Bramlett 1992; Johnson and Johnson 1992). Black (1992) found that teachers who had difficulties with cooperative learning groups consistently reported they had had little, if any, training in teaching group interaction to their students. In Vietnam and many other CHC countries, assisting teachers to know about and get familiar with cooperative learning activities in workshops is an optimal method because instructions and guidelines for the use of cooperative learning in these countries are often lacking in both quantity and quality. There are very limited scientific materials available to explain the research background, adequate procedures and processes of effective cooperative learning strategies. The commonly available resources are the Internet, conference proceedings and a few textbooks that usually only introduce and describe cooperative learning in a short version that tells teachers simple steps to follow. Unfortunately, to organise effective cooperative learning lessons, teachers need to be trained with much more sophisticated theories and practices. Therefore, attending workshops run by specialists could enable CHC teachers to understand more about cooperative learning philosophies and therefore enable them to practise cooperative learning procedures more accurately.

However, it is noted that as discussed elsewhere in this chapter, in spite of huge efforts CHC governments have put into training their teaching staff at hundreds of workshops, the traditional teacher-centredness in CHC classrooms has not changed much. In the present study, the researcher found that simply placing teachers in workshops, teaching them the new practice and then requiring them to transfer it to their students did not guarantee the change because what is said in papers is often inadequate in preparing the teachers for the reality. Regarding this point, Phuong-Mai (2008) reported that her participants expressed an overwhelming consensus of opinion that materials about student-centredness used at training workshops around Vietnam were insufficient and far too theoretical. The present study found that training workshops should not only be organised once at the beginning of each intervention to teach the teachers the new practice but more effectively, there must be continuous workshops organised during the implementation process to enable teachers to speak out and discuss difficulties facing them along the way implementing the reform. Then, techniques that could help teachers adjust their practices culturally appropriately must be developed. This aims to keep teachers interested in carrying out the reform. For instance, in Phase 1 of this study although the participating teachers were required, and agreed, to reduce their lecturing and adopt cooperative learning and student-centred learning practices,

they did not actually change their role as the authoritative knowledge provider because they thought the students were far from self-sufficient in their learning and that they needed to depend upon the teachers in their quest for knowledge. Consequently, the teachers tried to 'spoon-feed' the students with the right answers by busily running about the class to answer every single question that the students raised. If the teachers were consistently required to change this authoritative supervision habit, they were very likely to withdraw from the study (meaning reject the reform). To avoid this problem to happen, the researcher instructed the teachers to move from supervising individuals to facilitating groups. The teachers were also assured that they could engage in making a decision if group members could not reach their consensus (this technique showed the teachers that all their power was not taken away). The results obtained in Phase 2 demonstrated that the teachers were happy with this adjustment and subsequently delegated more authority to the students.

Similarly, when the teachers were asked to apply and develop complicated activities to promote the students' high-level knowledge (this is one of the main functions of cooperative learning and student-centred learning practices), they did not comply because they found this task was not mandatory but very time-consuming. From their point of view, it was more important to focus on completing the curriculum to help their students deal with coming exams. To solve this problem, the researcher found that instead of receiving those questions from the teacher, the students should be guided to develop their own complex questions to gauge each other's knowledge. This technique would save the teachers' time (so that they could focus on finding techniques to extend the students' activities more) and give the students more than a chance to practise their complicated knowledge because Gillies (2004a) said that creating questions is also a way to improve knowledge.

These are two exemplary techniques the present study attempted to develop to enable the teachers to delegate authority to students so that students could actively engage in cooperative learning and student-centred learning practices. These techniques were powerful in terms of keeping the teachers interested in implementing the reform. What happened in this empirical study once again demonstrated that to encourage and persuade CHC teachers to implement the reform, reformers should not simply impose the new practice on teachers and students. Instead, they need to investigate what hinders the reforming process so that strategies to enable teachers to overcome the barriers could be developed. To do this, there must be frequent negotiations among and mutual support of people at different levels of the implementation process.

Finally, findings of the present study revealed that to influence CHC teachers to adopt cooperative learning, reformers also need to pay attention to the impact of assessment on the new practice. Results in Phase 1 reported that the teachers did not pay much attention to group activities because they wanted to spend time completing the curriculum to prepare their students for exams. The teachers found this was a 'must' because in CHC countries teachers' success is measured by their students' exam scores and grades. 'Good' teachers still need to ensure that students will

perform well in examinations. Chan (2001) claims that constructivist teachers' views of qualitative gains in understanding and intrinsic interest in the subject must also include the condition that their students do not fall behind in examination results. This was why many Hong Kong teachers acknowledged learning facilitation was essentially constructivist but most of them still adopted an examination preparation teaching concepts (Tang 2001). Watkins and Biggs (2001) and Wong (2003) argue that CHC teachers tend to make this safe choice because at the end of the day, despite of all the sweet talking of educational ideals and instructional inventions, what administrators, parents and even officials who advocate for education reforms are really concerned about are students' exam results. And teachers know it very well. Students know it well, too. CHC students have been well known to be highly alert to teachers' cues and examination requirements that may lead to achievement of high scores (Biggs and Watkins 1996). Students are very sensitive to what they perceive as teachers' 'real' demands. If teachers' 'real' demands are to complete the curriculum to prepare them well for exams so that they could get high scores, they will focus on finishing the required lessons first no matter whatever other learning practices teachers ask them to do.

### 5.3.7 Chapter Summary

- Teaching practice at CHC education institutions is characterised as teacher-directed instruction that strongly influences CHC students to adopt dependent and rote learning.
- To empower CHC students to actively engage in cooperative and learner-centred learning, it is necessary to change the traditional instructional teacher-centredness.
- Noticeably, many principles of student-centredness and cooperative learning are in conflict with Confucian cultural values. Therefore, mandatorily requiring CHC teachers to change their teaching practice without considering their voice does not guarantee genuine change.
- If the reform is imposed on CHC teachers, they can change their activities in class but their beliefs in authoritative teaching practices remain unchanged.
- Evidence demonstrating teachers only making 'artificial' changes (only change their activities in the class but not in their beliefs) was the teacher lectured less and had more mediating behaviours such as challenging students and summarising lessons and the students were provided with more chance to be involved in discussing and debating activities.
- Evidence demonstrating ineffective cooperative learning lessons was the teacher was still the only knowledge provider in new lessons, playing a decisive role in important learning activities and performing many instructing and directing verbal behaviours but few encouraging behaviours and students depended on the teacher for new knowledge, carried out activities chosen by the teacher, and had limited opportunities to learn the knowledge beyond the text.

- Evidence demonstrating teachers running effective cooperative learning lessons was the teacher engaged in many behaviours regarded as helpful and supportive of group endeavours; patiently listened to group discussions and provided hints to extend the group's activities and understanding; used soft, friendly and personal manner and tone in communicating with students; trusted students' organising and managing capacities; willingly empowered students to manage group work; put more effort into developing students' high-level knowledge; and encouraged students to give critical feedback on their peers' work.
- Evidence demonstrating students became involved in cooperative learning lessons actively and effectively was: Students performed few verbal behaviours regarded as unsupportive of promoting group cooperation like questioning, short responses and interrupting and engaged in many verbal behaviours that reflected effective and productive interactions among group members like elaborative behaviours, which made a marked increase in cooperative behaviours and significant decrease in individual and off-task behaviours.
- To enable CHC teachers to change their teaching practice, reformers should not simply put them in workshops to train them with the new practice because this does not guarantee the change. More importantly and effectively, teachers' comments upon the reform need to be heard and taken into consideration so that timely adjustments and revision of the reform can be made to keep teachers interested in implementing the reform.
- Ongoing workshops and coaching need to be available to respond to teachers' enquiries and assist them to overcome obstacles and difficulties facing their implementation process.
- Teachers can change their beliefs and adopt the reform seriously if they are ensured about the effectiveness and benefits of the reform.

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# Chapter 6

## Assessment at CHC Education Institutions: Problems and Strategies to Enhance Cooperative Learning

### 6.1 Introduction

More than 30 years ago, Elton and Laurillard (1979) claimed that ‘the quickest way to change student learning is to change the assessment system’ (p. 100). This argument still retains its validity. During recent decades, many studies have found that methods of assessment strongly determine students’ learning approaches (Biggs 1993; Kember and Gow 1994). Biggs (1999) then confirms ‘What and how students learn depends to a major extent on how they think they will be assessed’ (p. 141). In other words, Boud (1991a), King (1981) and Ramsden (1992) also agree that the methods used in assessing students are one of the most critical of all influences on their learning. Consequently, it is strongly suggested that there is a need to link the assessment system to any learning reform because Boud (1990) argues that when the assessment system does not match the new method, there will be a ‘gap between what we encourage students to focus upon (through our classroom practices) and what is needed for meaningful learning to occur’ (p. 2). These arguments imply that to initiate cooperative learning practices in CHC classrooms, there must be assessment practices that could promote cooperation among students.

Unfortunately, CHC educational reformers have often emphasised the employment of cooperative learning instructional practices but not placed enough attention on the influence of assessment practices. This neglect is one of the causes contributing to the failure of cooperative learning in CHC classrooms. To alert cooperative learning reformers in CHC countries about this misconception, two issues need to be addressed. First, there needs to be an examination of the assessment system at CHC education institutions to find out whether current assessment activities support cooperative learning. Second, assessment activities that could promote cooperative learning need to be identified. This identification would help guide CHC teachers to develop effective assessment practices to enhance students’ cooperation. This chapter attempted to tackle these two problems. Specifically, it will first investigate how assessment activities at CHC institutions are often

developed and how these activities affect cooperation among students. It will then report an empirical study that was carried out in Vietnam by the researcher to identify the type of assessment that could influence students to adopt cooperative learning effectively.

## 6.2 Nature of Assessments at CHC Education Institutions

In CHC education institutions, assessments are varied, ranging from formal examinations, to assignments, to experiential, process-oriented activities, including peer assessment and self-assessment. To a great extent, it can be said that assessment types in Western and CHC institutions are similar. The only obvious difference is the content of the tests. This difference is clarified by Tang and Biggs (1996, p. 161) as 'quantitative' (in CHC institutions) and 'qualitative' (in Western institutions) methods. Quantitative assessment means that teachers tend to test everything they teach in class, so students only need to reproduce previously learned content quickly and accurately. In such tests, quality of content and its integration with other content becomes secondary (Tang and Biggs 1996). By contrast, qualitative assessment tends to test students in an 'authentic' setting where students are given the sort of problem they would meet in real life and often have to apply problem-solving skills.

Regarding assessment methods, it appears that the traditional mid-semester or end-of-semester true-false and multiple-choice tests are preferred tools for assessing and grading students at CHC education institutions. There have been various critiques about these assessment activities. Boles (1999), for instance, claims that the practice of judging students mainly on the basis of their performance in an intense, one-off, end-of-cycle experience is ineffective in enhancing students' learning. More specifically, Candy et al. (1994) explain that such exams favour those students who produce glib, but not always substantive, answer under pressure; encourage cramming of facts which, as soon as the examination is over, are forgotten as quickly as they were learned; encourage absolute, rather than relative, understandings by stressing 'rightness' and 'wrongness'; and encourage an atomistic view of knowledge – something to be accumulated – rather than evidence of real learning. Another problem is that when multiple-choice and true-false tests are not designed properly and mainly require memorised knowledge, they create many chances for students *not* to work cooperatively. The reason is that multiple-choice and true-false tests require a correct answer that can be typically found by following a number of well-structured rules or procedures. For such a task, Cohen (1994) says that there is no strong motivation for groups to interact and solve problems as a group. Similarly, Vedder (1985) argues when students are fixated on finding the right answers, they spend little time engaging in thinking and talking about problem-solving strategies. As such, when students are required to work on discussing their preparation for the multiple-choice questions, instead of discussing

their understanding of the meaning of the text or perhaps identifying the implications and hidden messages of the author, they just attempt to challenge each other by raising questions and finding the 'right' answers from the text. Under such conditions, the better students are more likely to dominate the conversations because, as Nist and Holschuh (2008) found, the high-achieving students usually tend to be quicker and memorise better. Consequently, better students often have more power in making final decisions. By contrast, opinions and suggestions of the low achievers are more likely to be rejected and ignored.

Unfortunately, assessment practices at CHC colleges are often developed improperly. Various studies have provided evidence supporting this argument. Nguyen-Thi (2000), for instance, conducted a study with 200 teachers at several Vietnamese universities to investigate how they designed assessments for their students. The findings showed that almost all the participating teachers did not know how to assess the qualitative aims of the courses. They often overwhelmingly tested low-level outcomes which mainly required memorised and reproduced knowledge. This situation happens in other CHC nations too. Marso and Pigge (1991) conducted a survey to examine how assessments were designed in Ohio (Japan) and found that 72 % of the tests assessed straight recall and comprehension only. When comparing this problem to the situation in Hong Kong, Tang and Biggs (1996) claimed that Hong Kong teachers are unlikely to do better, and possibly worse, given the relatively low levels of pre- and in-service training in assessment. This common weakness can be explained by the fact that CHC teachers usually suffer from a heavy teaching workload. They chose and preferred to design low-level knowledge multiple-choice and true-false tests because they are less time-consuming.

These arguments indicate that to increase cooperation among CHC students, assessments need to be designed in a format that requires comprehensive tasks which can only be completed by a group but not individuals. These assessments are very likely to be able to increase cooperation among students because Tang and Biggs (1996) and Entwistle and Ramsden (1983) claim that CHC students are not totally rote learners but are widely known as 'streetwise' in examination techniques; if they see examinations as typically requiring rote learning, then they will rote learn even if this is not their preferred way of learning; however, if the subject requires them to demonstrate a complete understanding, they will have the skills to successfully complete the subject with understanding; they know how to react to the environment specifically and contextually, using strategies that help them meet examination requirements while learning deeply on the side. As such, it is anticipated that CHC students can be influenced to change their passive and dependent learning approach to cooperative learning if they are assessed by the type of assessment that requires them to cooperate with each other. To find evidence demonstrating this hypothesis, in 2010 the researcher conducted an experimental study that aimed to identify the type of assessment that could promote cooperative learning in CHC classrooms. The following section will present how this study was conducted and what was the type of assessment.

## **6.3 A Study to Identify Assessment Practices That Could Enhance Cooperation Among CHC Students**

### **6.3.1 Participants**

This study was a quasi-experimental and posttest-only design study. Participants of the study were 160 students from two classes from a university in Ho Chi Minh, Vietnam. The students were sophomore and taught by the same teacher on an introductory education course during a 3-month semester. The ages of the participants ranged from 18 to 20. The first class had 82 students and was used as the control class (70 % were female and 30 % were male). Based on their first year academic records, 33 students were identified as low achievers ( $GAP \leq 6.5$ ); 39 were ranked as high achievers ( $GAP > 6.5$ ) (the score scale was from 1 to 10). The second class had 78 students and was used as the treatment class (65 % were female and 35 % were male). In this class, 30 students were low achievers and 43 were high achievers.

### **6.3.2 Course Structure**

The two classes used the same syllabus, had the same reading materials, functioned under the same course requirements and were introduced to the same cooperative learning structure. Basically, the students were taught the interpersonal and small-group skills needed to promote cooperation at the beginning of the semester. Then, they were grouped in mixed-ability groups that consisted of a balance of five low-high achievers. The students were required to help each other and facilitate each other's learning (i.e. listening to others, sharing ideas and information, respecting other students' points of view and resolving conflict amicably), and they had to accept responsibility for contributing to the group's task. In effect, these groups were established so that the essential components of successful cooperative group work as defined by Johnson and Johnson (1992) were evident.

In addition, the teacher was asked to ensure that the cooperative group activities required the students to consider information they had previously learned, and through a series of probing questions, demonstrate that they were able to apply, analyse, synthesise and evaluate solutions to the task. Many of the activities were open and discovery based where there were no correct answers and the students were required to cooperate as they discussed how to proceed as a group and share information. While the teacher was able to determine the lesson plan, in order to create opportunities for the students to work with each other, all 90-min lessons were, in general, designed in the same format: the first part of the lesson involved the teacher lecturing for 40–50 min, while the second part of the lesson allowed the students to work in groups to review the lesson and explore more information.

The only difference between the two classes was that in the control class, the students were informed that they would be assessed by two multiple-choice tests at the end of the semester. The students took the test as individuals first, and then they took the same test as a group immediately after they finished their individual test. The individual test made up 60 % of the total grade, whereas the group test made up 40 % of the grade. To achieve high scores on both individual and group tests, group members had to help each other to make sure that every member understood the lessons. This aimed to provide the students with the opportunity to optimise their study by both making use of each other's contributions in cooperative learning groups and bringing into play their own strength in the individual test.

In contrast, in the treatment class, 4 weeks before the semester ended, the students were asked to work in their group on a group project that was assigned by the teacher. To succeed in this project, the students needed to divide the project into small parts each of which was conducted by a member. Group members were encouraged to discuss with each other regularly to make sure everyone understood what they were doing so that they could do the best work that was then included in the final project. At the end of the semester, group projects were presented in front of the class as a detailed and comprehensive PowerPoint presentation. The final grade for each student was a combination of 30 % by peer assessment and 70 % from the joint project.

### **6.3.3 Data Collection**

The study collected data from multiple sources including a questionnaire, observations, audiotapes and interviews.

#### **6.3.3.1 Questionnaires**

The questionnaires aimed to represent the key elements of successful cooperation: positive interdependence, individual responsibility, interpersonal communication, facilitation of each other's efforts, and regular processing of the group's functioning in managing the task as well as its members. It included items such as 'Group members gave each other time to talk and make suggestions', 'The opinions of others are valued' and 'Group members often do extra work outside' (see Appendix 2).

#### **6.3.3.2 Observations**

Observations were applied to three focus groups in each class. These focus groups were randomly chosen at the beginning of the semester. Observations measured four behaviour state categories including cooperative behaviour (task-oriented group behaviour such as listening and discussing), noncooperative behaviour

(competitive behaviours which exclude others such as opposition and criticism), individual on-task behaviour (work alone on task) and off-task behaviour (nonparticipation in group activities and not working individually) (see Appendix 3). Momentary time sampling was used to record the occurrence of behaviour within each category at 10-s intervals for group members over a period of 10 min. Only the behaviour that was observed at each 10-s interval for the student who was being observed was recorded. A research assistant was employed and trained to observe the focus groups together with the researcher. To guarantee the validity of observations, each student was observed 30 times during the whole course by both the researcher and the assistant.

### 6.3.3.3 Audiotapes

Audiotaping was used to record the discussions of three focus groups in each class. Each recording session lasted for 30 min. The purpose of audiotaping was to help the researcher identify the verbal interactions of the students to determine how group members cooperated with each other. The system of interaction analysis originally developed by Webb (1985) and modified by Gillies and Ashman (1996) was used to compile information on student verbal interactions. The system included eight categories: elaborations (i.e. provide detailed help); short responses (i.e. responses that are not elaborated); tentative questions; challenging questions; engages (i.e. statements or discussion that holds the attention of other students); polite interrupts; negative interrupts; and directions (i.e. instruct others and scaffold each other's learning).

### 6.3.3.4 Interviews

In this study interview data supported and illuminated audiotape and observation data. The questionnaire survey and observation data was collected and initially analysed to catch interesting issues. Then, in interviews, the researcher focused on investigating the interviewee's points of view about these issues more deeply. In general, quantitative data were analysed first and the quantitative results shaped qualitative data in follow-up interviews. For instance, the observation results revealed that the students were not interested in a cooperative learning activity, the researcher took note and then in follow-up interviews, the researcher focused on asking the students to clarify factors that made them disinterested in that activity. Interviews took place at the completion of each phase. The two teachers and ten students in each class were selected randomly to participate in semi-structured interviews. Each interview lasted between 15 and 30 min. Sample interview questions were 'Do you like working in your group? Why/Why not?' and 'Are you happy with the results you receive from this course? Why/Why not?' (see Appendix 4).



### **6.3.4 Data Analysis**

#### **6.3.4.1 Questionnaire**

Participants were asked to circle their response on a 5-point Likert-type scale (Strongly disagree = 1; Disagree = 2; Undecided = 3; Agree = 4; Strongly agree = 5). Prior to analysis, all variables were examined for accuracy of data entry. Means and standard deviations were then examined on all variables on the questionnaire in both classes. To determine if there were differences in perceptions of the low and high achievers toward cooperation in each class, assumptions of regressions were tested first. The results showed that assumptions were met. Therefore, independent t-tests were conducted.

#### **6.3.4.2 Observations**

The researcher and the assistant compared their observations to check interobserver agreement. The result reported that the agreement rate on all behaviour states varied from 85 % to 100 %. Behaviour patterns were coded for frequency. The frequency was then converted into percentages to compare the results between the two classes.

#### **6.3.4.3 Audiotapes**

All audiotapes were fully transcribed by the assistant and rechecked by the researcher. After the researcher and the assistant agreed on the corrections to the transcripts, verbal behaviours were identified on eight categories: elaborations (i.e. provide detailed help); short responses (i.e. responses that are not elaborated); tentative questions; challenging questions; engages (i.e. statements or discussion that holds the attention of other students); polite interrupts; negative interrupts; and directions (i.e. instruct others and scaffold each other's learning) by the researcher.

#### **6.3.4.4 Interviews**

Content analysis procedures were applied (Neuman 2003). Raw data themes served as the primary unit of analysis. A hierarchical inductive analysis was then conducted. The assistant grouped the original raw data themes into higher-order themes that shared similar meaning and then gave a descriptive name to each theme. The researcher looked at the higher-order themes without the assigned names and described them. These descriptions were then compared with those of the assistant. There was a high degree of agreement. This provides some evidence of the validity and reliability of the grouping into themes. The higher-order themes were then examined for similarities for further combination as dimensions. When higher-order themes could not be meaningfully grouped into dimensions, they were carried forward independently. Eventually the original raw data themes (direct

**Table 6.1** Differences in the students' perceptions of effective cooperation in the control and treatment classes

Perception	Control class	Treatment class	t	p
	<i>n</i> = 82	<i>n</i> = 78		
	M (SD)	M (SD)		
Group members gave each other time to talk and make suggestions	2.95 (1.00)	2.55 (0.89)	0.57	.24
Group members treat each other with respect	3.05 (1.10)	3.25 (0.55)	2.23	.71
The opinions of other's are valued	3.10 (1.17)	3.50 (1.05)	2.11	.34
Group members seek help from each other before asking the teacher	3.20 (0.96)	3.10 (0.71)	1.36	.86
Group members are free to talk and share ideas with each other	3.00 (1.17)	3.50 (0.95)	2.40	.19
Everyone has a say in decisions	2.85 (1.14)	3.90 (0.72)	2.03	.00**
Group members give suggestions and help when needed	2.60 (0.75)	3.25 (0.79)	1.36	.02*
Every member is encouraged to do best work	2.85 (0.75)	3.00 (0.73)	2.36	.54
Group members often do extra work outside	2.60 (0.68)	3.06 (0.76)	1.26	.08
Group work is fun	2.85 (1.35)	3.70 (0.92)	1.03	.06
Group work is enjoyable	2.80 (1.24)	3.65 (0.88)	2.40	.02*

Note. Strongly disagree = 1; Disagree = 2; Undecided = 3; Agree = 4; Strongly agree = 5  
 \*  $p < 0.05$ ; \*\*  $p < 0.01$

quotations from students' comments) were re-examined to ensure that the meaning associated with raw data themes had not been misconstrued in the analytic process. The assignment of higher-order themes to dimensions was carried out jointly by the researcher and the assistant. Checking the original data was done separately by the researcher and the assistant and then discussed until consensus was reached.

## 6.3.5 Results

### 6.3.5.1 Effects of Ill-Structured and Well-Structured Assessments on Cooperation Among the Students

#### Questionnaire Results

Differences in scores for items that measured the effects of assessments on cooperation among the students in the both classes are presented in Table 6.1.

The results show that the treatment class had higher scores for almost all items. This indicates that the students became more cooperative in the treatment class. The significant difference was found on three items 'Everyone has a say in decisions' ( $p < 0.01$ ), 'Group members give suggestions and help when needed' ( $p < 0.05$ ) and 'Group work is enjoyable' ( $p < 0.05$ ). This means that in the treatment class, the students shared decision making much better and they all were willing to help each other when needed. In this class, the students also experienced that group work was more exciting and enjoyable.

**Table 6.2** Percentage of behaviour states of the students in the focus groups in the control and treatment classes

	Control class <i>n</i> = 15	Treatment class <i>n</i> = 15
Behaviours		
Cooperative behaviours	51 %	59 %
Noncooperative behaviours	9.6 %	7.8 %
Individual on-task behaviours	23 %	24 %
Off-task behaviours	13 %	10 %

**Table 6.3** Frequency of verbal interactions in the focus groups on the control and treatment classes

	Control class <i>n</i> = 15	Treatment class <i>n</i> = 15
Practices	Frequency	Frequency
Elaborations	8	12
Short responses	11	5
Tentative questions	5	7
Challenging questions	9	2
Engages	2	9
Polite interrupts	6	9
Negative interrupts	6	3
Directions	7	12

### Observation Results

To investigate whether there were changes in behaviour states of the students in the control and treatment classes, frequencies of each behaviour state were recorded and converted to percentages as presented in Table 6.2.

The results report that the students in the treatment class had higher cooperative learning behaviours than those in the control class (59 % compared to 51 %) but had lower noncooperation behaviours than their partners in the control class (7.8 % compared to 9.6 %). These students also had lower off-task behaviours but slightly higher individual on-task behaviours than those in the control class (10 % compared to 13 % and 24 % compared to 23 %, respectively). In general, in the treatment class the students' behaviours changed from noncooperative to cooperative behaviours.

### Audiotape Results

Audiotapes of the focus group which were recorded in the control class for 1 h (twice) and in the treatment class for 1 h (twice) were coded, and the frequency of each type of verbal interaction is presented in Table 6.3.

An examination of Table 6.3 shows that compared to the students in the control class, the students in the treatment class performed a much smaller number of two practices of giving short responses (11 in the control class compared to 5 in the treatment class) and asking challenging questions (9 in the control class compared to 2 in the treatment class). By contrast, the students in the treatment class had a markedly larger number of the other three practices of providing

**Table 6.4** Examples of practices during group discussions

Practices	Exemplary extracts
1. Elaborations	I admit that ‘Áodài’ should be chosen to represent Vietnamese traditional culture because whenever people see ‘Áodài’, they certainly think about Vietnam Yes, it is because it only belongs to Vietnam, not to other countries Your point is correct because it captures main ideas in that text and I think no other way is better
2. Short responses	Yes I think I agree No. I don’t think so
3. Tentative questions	How about we use this method for the next question because these two questions share many similarities? What do you think? Why don’t we re-check its origin and see where it was developed and we make a conclusion then? I think we should combine all ideas first then make a comparison. What do you think?
4. Challenging questions	I am not sure I understand what you are trying to achieve. Perhaps you should clarify it for me? Sorry, can you explain this point again. Why do you think we should accept it? Do you have any argument supporting for your agreement?
5. Engages	Why don’t you guys see this solution? If we combine what I just said and Lan’s view, we can have the first draft then we modify it along the way. Do you agree? Can anyone help provide a piece of information about the place? It’s better to know something before visiting I think Mai can clarify this because you used to use that method, am I correct?
6. Negative interrupts	Oh, no. I don’t think so No. It is not right I don’t think so
7. Positive interrupts	Sorry. I think we should refer this point to the case of ‘Áodài’ to see if there is any difference first Sorry for jumping in but why don’t you use this as an evidence for the answer Lam, I think you want to contribute some ideas here
8. Directions	Before making a conclusion I think you should go back to the previous lesson which has some concepts guiding the criteria Do you think you can consider the teacher’s lecture for this situation? I see it’s worthwhile considering this Before going there to investigate the real situation, you may need to look for the history of that place because it has many interesting legends

elaborations (12 compared to 8 in the control class), engaging with others (9 compared to 2 in the control class) and giving directions (12 compared to 7 in the control class). These results indicated that the students in the treatment class, in general, adopted more inclusive practices by providing help to each other while reducing their exclusive actions like challenging and interrupting other students.

Table 6.4 reports sample verbal practices that the students used during four recorded discussions. These practices were categorised into six main categories:

elaborations (providing detailed information), short responses (minimal responses), questions (asking for more information), engages (helping others be involved in conversations), interrupts (expressing ideas) and directions (guiding new ideas).

Two sample extracts below show differences in the verbal practices of the students in the discussions recorded in the control and treatment class. Extract 1 was recorded in the control class when the students were discussing the topic 'Defining traditional culture of Vietnam'. Extract 2 was recorded in the treatment class when students were working on the topic 'Discovering Vietnamese traditional culture on fieldwork'.

***Extract 1***

1: Now we have finished the summary. Does anyone have any question so far?

2: No, so everyone understands the meaning of the text. We can move to the question 'How to define traditional culture?'

3: From the text, it said that traditional culture is something which must be old ...

4: No. I don't think anything which is old can be defined as traditional culture. I think it must be something which has traditional cultural value. *(Student wants to challenge the other)*

5: But how do you know something has traditional cultural value? *(Challenge each other)*

6: I think we studied already. *(Short response without elaboration)*

7: Where?

8: Let's see. Hmm, some weeks ago the teacher said that traditional cultural value means something represents the people of a country, something important to that country and something belonging to that country. *(Elaborated explanations after being asked)*

9: If you can give an example, it would be clearer.

10: Ok. 'Áo dài' is an example. *(Short response without elaborate explanation again)*

11: Does anyone know criteria which define 'Áo dài' as Vietnamese traditional culture?

12: It is unique. It represents Vietnamese women. It was born a long time ago.

**Extract 2**

1: What do you guys think if we review all methods in the text first?

2: Ok. Who goes first?

3: How about we take turn? Start from Lan? (*Engages*)

4: Ok. I think we should group all methods into two groups, namely, community methods which need cooperation among people in the society and individual methods which can be done by each person. What do you think, my friends? (*Engages*)

5: That's good. This way can give us a clearer picture.

6: So the community methods mean policies issued by the government and authorities, and individual methods mean responsibilities of each citizen. (*Elaborations without being asked*)

7: Yes, very correct. That's what I want to explain.

8: For example. We are students now, so what are our responsibilities to protect our traditional culture?

9: Good connection! To make it easier to find out these issues I think we should give an example of traditional culture which needs to be protected. (*Direction*)

10: For example, how to protect the collapsing building in our university (*Students joked about a very old building in the university*)

Everyone laughed . . .

It is clear that during the first discussion, short responses and challenging questions were common. The students used these two types of verbal interactions four times during the conversation. Some of the students also used impolite interruption. For instance, when one student said '*... it said that traditional culture is something which must be old ...*', the other student did not wait for this student to finish but interrupted '*No ...*'. It is very easy to perceive that the students tended to challenge and interrupt frequently and only explained when being asked to do so.

By contrast, in the second discussion, the learning atmosphere seemed more enjoyable. The students became more polite to each other. There were no short and challenging questions and answers. Instead, the students used a lot of engages (e.g. *How about we take turns? Start from Lan?*) and supportive feedback (e.g. *Yes. Very correct; That's what I want to explain.*). They also used jokes to laugh with each other. This indicated that they were relaxed when working in their group.

### Interview Results

Results obtained in the control class showed that only 33 % of the students liked working in their groups. The main reason was that they had a good opportunity to

review knowledge. However, these students perceived that group work was time-consuming, especially when they had to tutor those who were slower. Another 34 % stated that they felt bored and lost confidence when working with others. The main reasons reported included (1) better students went faster and they did not always explain information to the lower-achieving students clearly enough, (2) the lower-achieving students felt uncomfortable when they expressed their ideas to others because the higher-achieving students usually ‘jumped into their mouth’ (i.e. demeaned them) when they got stuck, and (3) the opinions of the lower-achieving students were not respected and group decisions were mostly made by only one or two members. These are two messages extracted from the interviews:

I feel that without my ideas the group still work well because Lan and Huong always make final decisions. They do not need ideas from other members.

The discussion today annoys me a lot. I know I do not do a good job because I do not present fluently. However, others should have been more patient. It seems that they feel sleepy while I am doing my job.

Another message was obtained from one student who must be a high achiever.

It is time-consuming. I wish others could work more quickly because we actually do not have much time. Every day we have to complete one lesson. We still have a lot of stuff for other subjects.

Responses from interviews in the treatment class reported that the percentage of those students who confirmed that they were satisfied with their group work was not actually higher than that in the control class. However, there were more students who perceived that cooperative learning was very interesting. Interestingly, the reasons the students used to explain why they were not interested in their groups were quite different from those collected in the control class. Specifically, no student complained that they were left out and devalued by others. By contrast, main themes that emerged from the students’ complaints were unequal workloads, uncomfortable learning environments and uncertainty about others’ products.

The interviews in the treatment class also disclosed some evidence demonstrating that the students weighted their group benefits as more important than their individual feelings. For instance, if in the control class a number of the students expressed their uncomfortable feelings when they were corrected by friends (i.e. ‘jump into my mouth’), in the treatment class these feelings disappeared when their writings were corrected by their partners before being included in the group essay. When the students were asked ‘How do you feel when your works were corrected by others?’, one student said:

Of course, I want my part to be perfect but I have tried my best. I feel more comfortable when someone in the group helps revise it before we submit. I know they have to spend extra time.

In the treatment class, the increase in cooperation between group members was also shown via outside-class meetings. The researcher noticed that some groups organised field trips to find factual information for their essays. Some other groups met to rehearse before their official presentation.

**Table 6.5** Differences in perceptions of the low and high achievers toward cooperation in the control class

Perception	Low achievers	High achievers	t	p
	<i>n</i> = 42	<i>n</i> = 40		
	M (SD)	M (SD)		
Group members gave each other time to talk and make suggestions	3.51 (1.06)	3.70 (0.91)	0.57	.57
Group members treat each other with respect	3.12 (0.66)	3.24 (0.82)	2.23	.42
The opinions of other's are valued	2.76 (0.66)	3.27 (1.02)	2.11	.00**
Group members seek help from each other before asking the teacher	3.28 (0.74)	3.34 (0.69)	1.36	.18
Group members are free to talk and share ideas with each other	3.83 (0.89)	4.13 (0.73)	2.40	.03*
Everyone has a say in decisions	3.10 (0.66)	3.52 (0.82)	2.03	.04*
Group members give suggestions and help when needed	3.18 (0.74)	3.34 (0.69)	1.36	.17
Every member is encouraged to do best work	3.20 (0.84)	3.34 (0.59)	2.36	.12
Group members often do extra work outside	3.04 (0.74)	3.12 (0.69)	1.26	.58
Group work is fun	3.17 (0.90)	3.27 (0.82)	1.03	.38
Group work is enjoyable	3.09 (0.96)	3.54 (1.09)	2.40	.04*

*Note.* Strongly disagree = 1; Disagree = 2; Undecided = 3; Agree = 4; Strongly agree = 5  
\*  $p < 0.05$ ; \*\*  $p < 0.01$

### 6.3.5.2 Effects of Ill-Structured and Well-Structured Assessments on Cooperation Among Low and High Achievers

While observing group discussions, the researcher perceived that there were marked differences in the involvement of different groups of students in the two classes. For example, in the control class low achievers seemed very passive and usually said 'yes' to decisions made by the medium and high achievers. In contrast, in the treatment class the low achieving students appeared more active and made more contributions to the group decisions. This indicated that the change in assessment might influence some groups of students more strongly than other groups. To determine if there were differences in perceptions of the low and high achievers toward cooperation in each class, assumptions of regressions were tested first. The results show that assumptions were met. Therefore, independent t-tests were conducted. For these tests, statistical significance was set at 0.01 and 0.05 levels. As aforementioned based on their first year academic records, in the control class 42 students were identified as low achievers ( $GAP \leq 6.5$ ), 40 were ranked as high achievers ( $GAP > 6.5$ ) (the score scale was from 1 to 10). In the treatment class, 35 students were ranked as low achievers and 43 were high achievers.

#### Questionnaire Results

Differences in scores for items that measured the effects of assessments on cooperation among the low-ability and high-ability students in the both classes are presented in Table 6.5.



**Table 6.6** Differences in perceptions of the low and high achievers toward cooperation in the treatment class

Perception	Low achievers	High achievers	t	p
	<i>n</i> = 35	<i>n</i> = 43		
	M (SD)	M (SD)		
Group members gave each other time to talk and make suggestions	3.37 (1.00)	3.61 (0.98)	1.47	.37
Group members treat each other with respect	3.24 (0.66)	3.36 (0.82)	1.23	.12
The opinions of others are valued	3.20 (0.74)	3.34 (0.69)	1.36	.18
Group members seek help from each other before asking the teacher	3.38 (1.24)	3.44 (0.99)	2.12	.71
Group members are free to talk and share ideas with each other	3.11 (1.17)	3.50 (1.09)	2.40	.05*
Everyone has a say in decisions	3.34 (0.66)	3.52 (0.82)	2.03	.09
Group members give suggestions and help when needed	3.93 (0.88)	4.04 (0.69)	1.36	.07
Every member is encouraged to do best work	3.04 (0.86)	3.14 (0.59)	1.06	.59
Group members often do extra work outside	3.12 (0.75)	3.25 (0.69)	0.79	.43
Group work is fun	3.28 (1.17)	3.43 (0.82)	1.03	.14
Group work is enjoyable	3.00 (0.91)	3.09 (1.09)	1.40	.32

Note. Strongly disagree = 1; Disagree = 2; Undecided = 3; Agree = 4; Strongly agree = 5

\*  $p < 0.05$

An examination of Table 6.5 shows that there were significant differences in perceptions between the different ability groups on three items ‘Group members are free to talk and share ideas with each other’, ‘Everyone has a say in decisions’ and ‘Group work is enjoyable’ with  $p$  value at 0.05 level. The significant difference was also found on the item ‘The opinions of others are valued’ with  $p$  value at 0.01 level. By contrast, according to an examination of Table 6.6, a significant difference in perceptions between the different ability students was only found on the item ‘Group members are free to talk and share ideas with each other’ with  $p$  value at 0.05 level.

Surprisingly, the results show that both groups of low and high achievers in the treatment class gave lower scores on three items ‘Group members are free to talk and share ideas with each other’, ‘Every member is encouraged to do best work’ and ‘Group work is enjoyable’ than those in the control class. An examination in Table 6.7 shows if there were significant differences in the students’ perceptions on each item between the two groups of low and high achievers in the two classes.

The results in Table 6.7 reported that there were significant differences between two low-achiever groups on item ‘The opinions of other’s are valued’ with  $p$  value at 0.01 level and between two high-achiever groups on item ‘Group members are free to talk and share ideas with each other’ with  $p$  value at 0.05 level. As explained above although both low- and high-achieving groups in the treatment class gave lower scores on three items ‘Group members are free to talk and share ideas with each other’, ‘Every member is encouraged to do best work’ and ‘Group work is

**Table 6.7** Differences in perceptions of two groups of low and high achievers toward cooperation in the two classes

Perception	Low achievers		High achievers	
	t	p	t	p
Group members gave each other time to talk and make suggestions	1.32	.17	1.38	.16
Group members treat each other with respect	2.02	.13	1.50	.23
The opinions of other's are valued	2.01	.00	1.40	.18
Group members seek help from each other before asking the teacher	1.30	.50	2.32	.40
Group members are free to talk and share ideas with each other	1.99	.06	1.87	.04
Everyone has a say in decisions	1.43	.52	2.32	.45
Group members give suggestions and help when needed	1.27	.32	2.45	.42
Every member is encouraged to do best work	1.02	.12	1.10	.13
Group members often do extra work outside	1.52	.22	1.03	.25
Group work is fun	1.42	.39	1.70	.17
Group work is enjoyable	1.52	.32	1.08	.06

*Note.* Strongly disagree = 1; Disagree = 2; Undecided = 3; Agree = 4; Strongly agree = 5

enjoyable' than those in the control class, significant difference was only found between two high-achieving groups on the item 'Group members are free to talk and share ideas with each other'. This may have happened because when working on the group project, high achievers needed to share more opportunities to talk and discuss with low achievers. They could not dominate group conversation as they did when working on an assessment as a multiple-choice test. In general, the results reported that when dealing with an assessment designed as a group project, low and high achievers became more cooperative in terms of sharing ideas, making decisions and respecting each other's opinions.

### Observation Results

Similar to the questionnaires, the researcher further investigated the behaviour states of the focus groups in the control and treatment classes to see whether different ability students had different behaviour states. Results of this investigation are presented in Table 6.8.

An examination of Table 6.8 shows that both low and high achievers in the treatment class had a higher percentage of cooperative behaviours than those in the control class (42 % compared to 66 % and 45–57 %, respectively). In contrast, these students had a lower percentage of noncooperative, individual on-task and off-task behaviours than those in the control class. This finding indicated that in the treatment class both low and high achievers accomplished better cooperation than those in the control class.

**Table 6.8** Percentage of the frequency of behaviour states of low and high achievers in the focus groups in the control and treatment classes

Students	Cooperative behaviours		Noncooperative behaviours		Individual on-task behaviours		Off-task behaviours		Control	Treatment	Control	Treatment
	Control	Treatment	Treatment	Control	Control	Treatment	Treatment	Control				
Low achievers	42 %	66 %	66 %	16 %	16 %	9 %	28 %	18 %	14 %	18 %	14 %	7 %
High achievers	45 %	57 %	57 %	18 %	18 %	10 %	28 %	21 %	12 %	21 %	12 %	9 %

### 6.3.6 Discussion

Data from the questionnaires, observations, videotapes and interviews confirmed that the students did become more cooperative when assessments changed from a multiple-choice question test to a group project. The explanation may be that a multiple-choice question test is a single end product which only requires a 'right' answer. Such tests do not motivate and require students to accomplish strong cooperation with each other to complete (Cohen 1994). It was seen that in this study when the students were required to work on discussing their preparation for the multiple-choice question test, instead of discussing their understanding of the meaning of the text or maybe identifying the implications and hidden messages of the text, the students just attempted to challenge each other by raising questions and finding the right answers from the text. Under such a condition, the better students were given more than a chance to devalue less able students (because bright students are usually quicker and have a better memory), so they could easily move forward and leave low-achieving students behind in group discussion.

This situation was, however, improved when the students worked on their joint project. Requirements of the essay for the project were beyond what was discussed in the text. Therefore, the students had to exchange ideas to propose new ideas and then integrate all the ideas together. The project also required the students to divide the essay into small tasks so that each member was responsible for one task. Usually for such a project, the group product is only creative if group members contribute ideas and no single individual is likely to be able to solve or accomplish the task without help from others (Cohen 1994). Gillies (2003) notes that such complicated tasks require group members to exchange information, have problem-solving strategies and skills, and have materials with each other to complete the task. In this study it was seen that when dealing with a joint project, group members became more encouraging of each other to contribute ideas and then compared and chose the best solution for the essay. This context gave low achievers more than a chance to demonstrate what they could do. What happened in this study has demonstrated that interaction was vital for group productivity and task completion, and this imperative may have overridden any constraints that the structure of the task imposed on group members.

In sum, findings of the present study suggest that multiple-choice question tests create many chances for students *not* to work together. These tests are only considered as appropriate means of assessment when they are well constructed to test higher-order cognitive domains rather than simple facts (Schuwirth and van der Vleuten 2003). High-level requirements are more likely to force students to cooperate better and to seek information and solutions which are not evident in the text. However, unfortunately multiple-choice assessments at Vietnamese colleges and many other CHC colleges are usually poorly designed. Thanh-Pham (2008) found that many Vietnamese teachers just wanted to reduce their burden rather than increase it by systematic discussion and consideration of designing advanced knowledge-testing assessments. Furthermore, the lack of support for classroom

planning and systematic evaluation of this process, either from the school organisation or from pre-service training in these areas, imposed additional demands on their time. This is a concern because if multiple-choice question tests are poorly developed, they are an inappropriate means of assessment at least in terms of promoting cooperative learning.

The study has proposed a joint project as an assessment method that could increase cooperation among CHC students. However, the researcher acknowledges that perspectives and exemplary findings led by this study are not definitive but rather suggestive and, hopefully, that they may prove thought provoking. There are two main reasons for this being the case. First, the findings were obtained from only one study that was conducted in Vietnam. Therefore, findings found in this study may only correctly represent Vietnam and possibly other CHC countries that share similar cultural values. These findings may not appropriately represent those countries that are characterised by different cultural patterns. Hofstede and Hofstede (2005) claim that students holding different cultural values do not share similar learning practices. Second, due to the scope of this research, observations, audiotapes and interviews were only conducted with a limited number of times on some target groups. This restriction limits the generalisability of the findings. More studies should be conducted with a larger population in diverse contexts and using a more robust experimental model to investigate the extent that findings of this study can generalise.

### **6.3.7 Chapter Summary**

- Assessment has been widely claimed to be one of the most influential factors that determine students' learning practice. To change students' learning approach, it is necessary to create a change in assessment.
- Assessment at CHC colleges tends to be designed in the quantitative and low-level knowledge-testing format. This type of assessment creates many opportunities for students to demonstrate poor cooperation because they are not motivated and pressured to work cooperatively in groups.
- To promote cooperative learning at CHC colleges, it is necessary to develop assessment activities that evaluate students' complicated knowledge (i.e. analytic, comparative, argumentative) and require joint efforts (i.e. group project, group multiple-choice test).
- Evidence showing poor cooperation among students under the impact of low-level knowledge-testing assessment was group members did not give each other equal time to talk and make suggestions, did not respect and value each other's opinions, did not co-make decisions, did not seek help from and encourage each other to accomplish the joint tasks, cared about individual performance more than group benefits, were involved in a large number of individual and off-task behaviours and engaged in many impersonal, rigid and unfriendly verbal behaviours.

- Evidence showing good cooperation among students under the impact of high-level knowledge-testing assessment is group members were conditioned to share equal opportunities to talk, make fairer contributions, highly evaluate each other's ideas, enthusiastically support each other by giving help and elaborative explanations, value group benefits more importantly than individual achievements and enjoy working with each other.

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# Chapter 7

## Learning Culture of CHC Students: Its Support and Challenge to Cooperative Learning

### 7.1 Introduction

Chapters 5 and 6 have discussed how teaching and assessment practices at CHC colleges impacted cooperative learning and what were the possible strategies to change teaching and assessment so that CHC students could be influenced to increase and strengthen their cooperation. In addition to addressing these two factors, in order to promote cooperative learning in the CHC context reformers also need to take CHC students' learning culture into consideration. This is a 'must' because findings of prior studies discussed elsewhere in previous chapters of this book demonstrated that if implementers (teachers and students) did not agree with principles of the learning reform, they tended to either reject the reform or implement it unwholeheartedly. The body of literature on educational change has also pointed out that many attempts to change learning and teaching have failed because implementers are forced to engage in practices that do not interest them (Fullan 1991, 1993). Many years ago Sabatier and Mazmanian (1980) were aware of the important role of students in implementing educational reforms and strongly advised that whatever reform is worked out, planners have to remember that implementers, responsible for carrying out changes, act not only from 'institutional incentives, but also from professional and personal motivation', so successful reforms must interest implementers (cited in McLaughlin 1987: 174). Corbett and Wilson (1995) and Ng (2009) also emphasise that reformers should be aware that students are not just receivers of the reforms but also negotiators of their interests during the reformative process.

These arguments warn that whatever cooperative learning practices reformers want to bring to CHC classrooms, they should not seriously conflict with CHC students' learning culture. Otherwise, potential rejection is not avoided. In CHC countries, this rejection is even more likely to happen because CHC students' learning culture is heavily influenced by Confucian culture that has many values opposing cooperative learning principles (as discussed in Chap. 3). Unfortunately, as discussed in Chap. 4 due to the hierarchical management culture, reformers in



CHC countries do not often take voices of 'street-level' people (teachers and students) into consideration. They assume that it is the students' responsibilities to accept whatever practices their teacher is asked to bring to the class. This is a misconception and it has made some contribution toward causing the ineffectiveness of cooperative learning in CHC classrooms. The current situation warns that reformers and policymakers should pay more attention to the issue of making cooperative learning culturally appropriate to CHC students' learning culture. This would help interest CHC students in practising cooperative learning activities. To shed more light on this issue, this chapter aims to explore learning cultural values of CHC students that are in serious conflict with cooperative learning principles. Similar to previous chapters, this chapter will also document findings of an empirical study that explored CHC students' perceptions toward the mismatches between learning cultural values of CHC students and principles of cooperative learning. This study also attempted to develop strategies to tackle these mismatches.

## **7.2 Learning Cultural Values of CHC Students That Cooperative Learning Reformers Need to Be Aware of**

There may be various cultural values that could pull and push CHC students from adopting cooperative learning. However, based on relevant literature in comparative education and findings of empirical studies that were conducted by both the researcher during the last 5 years and other the researchers found in the literature, the researcher argues that there are at least three cultural values that cooperative learning reformers should pay special attention to when they bring cooperative learning to CHC classrooms. These values are *friendship attachment*, *group leadership preference* and *peer assessment avoidance*.

### **7.2.1 Friendship Attachment**

The literature on the learning culture of CHC students has found that the types of group members have a remarkable impact on the effectiveness of teamwork among CHC students (Phuong-Mai 2008). Therefore, to implement cooperative learning in CHC classrooms successfully, researchers need to know how to group CHC students appropriately. Universally, grouping methods favoured by students are often in contrast with methods suggested by teachers. This happens because according to Mitchell et al. (2004) and Gillies (2007), students are more likely to be attracted to feeling comfortable and relaxed with each other and usually become rebellious if they are required to work with those who are not of their choosing; in contrast, teachers are more likely to be interested in placing students in a group that could give students as many chances to help each other study as possible.

As suggested by cooperative learning researchers, learning ability is usually seen as the most important factor that decides group formations. In the West, overall there are two main grouping methods that have been widely applied at all schooling levels. These methods are mixed-ability and tracking groupings. Mixed-ability grouping means students are mixed to make sure that each group has a balance of low-medium-high achieving members. This method has become very pervasive and often included in cooperative learning definitions (Watson and Marshall 1995). Cooperative learning researchers often apply this procedure to group their participants. Alternatively, tracking grouping means students are grouped based on their similar level of capacity. There are still disagreements and arguments about this grouping method. Therefore, it has not been used as widely as the heterogeneous method.

In the CHC context, these grouping methods, however, may not work because CHC people pay special attention to the importance of personal relationship and consider affection between co-workers as a crucial factor that determines the success of a group (Glazer 2006). This leads to the fact that for CHC collectivists, the ideal grouping method would be based on affection and personal relationships. The literature has documented two studies that found that friendship grouping was preferred in CHC classrooms. The first study was conducted by Melles in 2004. In this study Melles found that for Asian students, social interaction and personal relationship were among the most important factors that determined the success of teamwork. The second study was conducted by Phuong-Mai (2008) who found that Vietnamese middle school students favoured being grouped with friends more than with those whom they did not know well. Findings of these two studies raise the following question for further investigation:

*Are the capacity-based grouping methods that are recommended by cooperative learning researchers and widely applied in Western classrooms preferred by CHC students?*

### **7.2.2 Group Leadership Preference**

Cooperative learning theorists and researchers tend to suggest that the instructor should rotate roles within the group after the first activity to assure that all students experience a multitude of roles such as group facilitator, timekeeper, recorder, checker, summariser, elaborator, research-runner and wildcard (Millis and Cottell 1998; Sharan and Sharan 1992). This suggestion is not a surprise because individualism sees that power should be decentralised among group members rather than remaining in the hands of one or more leaders (Hofstede and Hofstede 2005). Dickson et al. (2003) also claim that Westerners only work effectively when power is equally distributed among group members. That is why Western cooperative learners tend to support a participative leadership style (Day et al. 2004; Dickson et al. 2003; Doel and Sawdon 2001).

By contrast, CHC people accept that society has a hierarchical pyramid structure, thus people should behave according to an order (Hofstede 2003). For instance, in family the father leads and assumes an obligation to the family, while the children are expected to play supportive roles and express a sense of duty to the parents. In schools, students are willing to accept unequal relationships which are characterised by the fact that each class has several unit leaders and, indeed, even sub-leaders for small groups (Phuong-Mai 2008). This indicates that leadership is obviously and necessarily needed when CHC students work in a team. In the body of literature, some studies have reported that Asians work better in teams where a member is officially appointed as a leader because this leader is in charge of managing all group members and pushing them to complete group work on schedule. Luo et al. (2008), for example, found that when working in a team, Chinese [who represent CHC peoples] have an ingrained culture of following their group leader. They always require a leader and if the leader is strong and competent enough, they certainly become good followers who are always reliable, discrete and loyal to the leader. CHC followers always try hard to empathise with their leader and see the leader as someone 'on stage' under constant scrutiny and look to follow the leader's leading. In contrast with many employees in the West, whose loyalty is more anchored on the goal and the psychological feeling of owning the task, Chinese employees actually feel emotional ties to their leader. The influence of a leader over his/her followers in Chinese companies is so strong that when the leader leaves the company, often his/her followers will do the same. Spreitzer et al. (2005) share a similar point of view when stating that CHC people naturally accept that there is a top-down order in the society, thus people should behave and act according to their position. In essence, these arguments indicate that suggestions made by cooperative learning researchers potentially contrast with the learning culture of CHC students. Therefore, a question raised for further research is:

*Do CHC students prefer and work better in cooperative learning groups led by a leader?*

### **7.2.3 Peer Assessment Avoidance**

Almost all cooperative learning models suggest two main methods to reward students. The first method highlights uniformity and fairness among group members. Therefore, it argues that all students in a group should receive the same grade irrespective of their individual contribution (Sama and Papamarcos 2000), or, alternatively, individual contributions are assessed and the final group grade is the average of each member's individual grade (Garfield 1993; Slavin 1995).

This method has not been supported and agreed by students in many studies both in Western and CHC countries. For instance, in Thanh-Pham and Gillies' study (2010), based on arguments of many researchers (e.g. Kember 2000; Tang and

Biggs (1996) who found that CHC students are collective and like to be supportive to each other, the researchers applied shared-grade assessment as a tool to increase cooperation among group members in cooperative learning groups and assumed that the participants would be happy with this practice. However, the findings of their study revealed that the students expressed negative opinions toward all items about sharing scores: 'I am satisfied with the equally shared assessment,  $M = 2.40$ '; 'Group-sharing grade is fair,  $M = 2.65$ '; and 'When learning in group, group members should get the same score,  $M = 2.20$ '. Similarly, in another study, Liang (1998) tried to investigate dilemmas of cooperative learning among Chinese students and found that although the participating students were happy to share workload and help each other complete both group and individual tasks, they rejected the sharing-grade method simply because it seemed unfair to every group member.

These are two sample studies that have found that fairly grading assessment did not work in the CHC context. In fact, Earl (1986), Goldfinch (1994), Conway et al. (1993) and Sharp (2006) warn that there is no method for deriving individual grades from group work which can be described as perfect. According to Sharp (2006), this is the case because there are some aspects from which the problem cannot be fully solved even theoretically. For instance, it seems hard to assess group members in a group which contains a lazy student who usually contributes very little to the group. However, sometimes this member may provide the group with a number of ideas which turn out to be very important to the determination of the group's eventual product. In this situation, the contribution of the lazy student is qualitative whereas other members contribute quantitatively.

To avoid such conflicts between group members, many researchers have applied the second method that acknowledges that different group members have different levels of participation and contribution, so they should be scored differently. To measure the difference in contribution and involvement of group members, peer assessment is usually applied (Yueh and Alessi 1988). The common peer assessment activity requires students to undertake verbal interchanges such as talking aloud and challenging one another's points of view. Such a physical environment is important because it creates situated settings for students to exchange ideas, so promote their learning. Although these peer assessment practices have been demonstrated to benefit students in different ways, when they are brought to CHC classrooms, they may cause concerns, even rejection, by the local students. The reason is that CHC students highly value the preservation of 'face' and consider 'face' as 'a person's social and professional position, reputation and self-image' (Irwin 1996: 67). Losing face inflicts extremely serious personal damage (Hofstede and Hofstede 2005). CHC students often try to avoid the loss of face at all costs (Ferraro 1994; Irwin 1996). If compared to Western culture, the loss of face for a person of Asian culture '... is similar to embarrassment for Westerners, but for CHC students it is a much more personal and intense feeling' (James 1995: 41). In schools, CHC students are seen as losing face when they are unable to answer the teacher's or a friend's questions or even when they

are just challenged on a point to confirm their knowledge (Burns 1991). Therefore, CHC students often prefer not to express personal ideas because they may look silly if their points of view are incorrect (California Department of Education 1994; Vang 1999). That is why CHC students do not usually initiate class discussions until they are called on to do so (Park 2000). Furthermore, CHC students dislike public touching and overt displays of opinions or emotions (Harshbarger et al. 1986). These findings strongly indicate that the principle of face-to-face exchange of feedback seems to be culturally inappropriate in CHC classrooms.

Another problem that potentially makes peer assessment unfavoured in CHC classrooms is that CHC students do not often judge and respect peer's assessment and feedback. A large volume of literature has found that CHC teachers are perceived to be the only one who is 'professional', 'experienced' and 'trustworthy' in class (Yang et al. 2006); thus, teacher's comments are more valued than peer's feedback (Scollon 1999). Compared to students in Western countries, Nelson and Carson (1998) discovered that students from countries with a large power distance (CHC countries) are less likely to value their peers' views than students from countries with a lower power distance (e.g. students from the USA). Peer assessment is not only unfavoured by CHC students but also CHC teachers. Saito and Fujita (2004) found that CHC teachers persistently believe students are incapable of rating peers because of their lack of skill and experience. To shed more light on this issue, in 2011 the researcher conducted a survey to examine perceptions of more than 300 students from two colleges in Vietnam toward peer assessment practices. The findings showed that the students, in general, explained that they were not interested in this activity. When the students were asked whether they used peer feedback to correct their work, the majority replied that they did read and consult their friends' feedback but did not seriously incorporate revisions in their essay because it seemed 'incorrect' to them. The students also expressed strong disagreement with the scores that peers gave each other. They even thought that peer assessment would destroy relationships among group members if group members were not happy with the scores that they gave each other.

These findings propose that in CHC classrooms, it is still worthwhile to apply peer assessment practice so that students can have extra feedback to improve their work. However, this method should be implemented in a manner appropriate to CHC students' learning culture. Therefore, a question for future research is:

*How to make peer assessment culturally suitable to the learning culture of CHC students?*

In an attempt to find answers for these three questions, the researcher has conducted a study to seek empirical evidence. The section below will present how this study was carried out and what answers were revealed.

## **7.3 A Study to Investigate Conflicts Between Learning Cultural Values of CHC Students and Cooperative Learning Principles**

### ***7.3.1 Participants***

Participants of the study were 145 second year students from one class at a university in Ho Chi Minh, Vietnam. All were 19 years of age. The study was conducted for one semester during a course on 'Vietnamese traditional culture'. The cooperative learning strategies employed were based on two prominent approaches, namely, 'Learning Together' of Johnson and Johnson (1999) and 'Group Investigation' of Sharan and Sharan (1992). Before the study began, the students were trained with the main principles of successful cooperative learning including listening, sharing information, cooperating, and proposing arguments for and against different points of view (Farivar and Webb 1998). The students were divided in two smaller classes. The control class had 72 students and the treatment class had 73 students. The two classes were taught by the same teacher on different days.

### ***7.3.2 Procedures***

First, to investigate the students' attitudes toward grouping composition, the students were grouped differently in the two classes. Specifically, the students in the control class were assigned to mixed-ability groups based on their academic records from the previous year. Each group had a balance of high-medium-low achievement members. In the treatment class, friendship grouping was applied. The students were free to choose their group members. Gillies (2007) warns that when friendship groups are formed, there is a common trend that low-status students may not be selected for groups. Therefore, the students were instructed that they could work with friends but must also include other members who chose or were assigned to their group. The techniques used to group students included two main steps. First, the students freely chose members to form five-member groups. Then, if any group did not have five members, they had to accept any member who chose to work in their group.

Second, to examine the students' perceptions toward group leadership traits, group leaders were appointed differently in the two classes. In the control class, group members were asked to take turns to play roles as recorder, secretary, summariser, reflector, elaborator, etc. Group leaders were not present in any group. In the treatment class, each group appointed a leader. The leader was in charge of assigning roles to each group member based on each member's capacity. These roles could change based on tasks the group was assigned and the effectiveness of the work that each group member completed. The group leader was also in charge of pushing group members to complete their tasks on schedule.

Finally, to develop a culturally appropriate type of peer assessment, after synthesising a large volume of literature on collective culture, the researcher found that collective culture should be understood at two levels. The first level is the individual level where collectivists work with each other as individuals. Within this environment, individuals define their needs more in terms of relations within their groups and sacrifice personal needs for the sake of the group (Fulop and Ross 2007; Oyserman et al. 2002; Phuong-Mai 2008). As a result, they usually dare not criticise and give their friends their honest feedback. The second level is when collectivists work with each other as a group. In this situation, Hui and Triandis (1986) claim that since collectivists feel very much interdependent with in-group members, they are willing to fight against outsiders to maintain their group integrity. Consequently, when being placed in this situation, collectivists tend to become more motivated to criticise and fight against those who do not belong to their group because as Triandis (1972) explains when collectivists develop and perceive in-group norms as universally valid, they distrust and are unwilling to cooperate with members of out-groups but are highly cooperative with their group members. From these findings, the researchers assumed that when *intergroup peer assessment* was applied, in-group members might have more motivation to exchange ideas so that the whole group can agree on the best solutions to present to other groups. Furthermore, when members are supported by their group mates, they would save their 'face' and have more courage to criticise the out-groups. Consequently, the students would have more opportunities to exchange formative feedback.

As such, it was assumed that *intergroup peer assessment* (where the students in one group evaluated other groups as a group) would work with CHC students better than *intragroup peer assessment* (where group members evaluated each other individually). To provide empirical evidence for this hypothesis, in the present study, the two classes were asked to apply these two types of assessment differently. Specifically, in the control class, *intragroup peer assessment* was applied. At the beginning of the course, the researcher discussed with the students about the procedures for peer assessment. They were told that 15 % of the course assessment marks would come from peer assessment and the rest would be standard group essays evaluated by the teacher. Peer assessment was designed so that in every lesson each group had to present a group presentation to summarise or discuss an issue in the text. All group members collectively assessed the contribution of their group members toward the tutorial task. An assessment guide and a scoring rubric were provided for this purpose (see Appendix 5).

In the treatment class, *intergroup peer assessment* was applied. The procedure for this type of assessment was when groups presented their assignments, first, the other groups assessed each group's presentation (intergroup product evaluation). All members of a group participated in discussion to assess another group's products based on criteria designed by the teacher. The teacher also evaluated the presentations independently. When exchanging feedback between groups, each group had one or two members who represented their group to explain what scores they gave the other groups and why they gave these scores. The whole group helped these members to answer those questions raised by other groups. Second, the students collectively

**Table 7.1** Criteria to assess contributions of group members

Criteria	Member 1	Member 2	Member 3	Member 4	Member 5
1 Effort	/20	/20	/20	/20	/20
2 Cooperation with others	/20	/20	/20	/20	/20
3 Initiative	/20	/20	/20	/20	/20
4 Technical knowledge/expertise	/20	/20	/20	/20	/20
5 Overall contribution to the group	/20	/20	/20	/20	/20
Total	/100	/100	/100	/100	/100

**Table 7.2** Overview of treatments

	Control class	Treatment class
Group composition	Mixed-ability grouping	Friendship grouping
Leadership	No formal leader appointed	Formal leader appointed
Peer assessment format	Intragroup peer assessment	Intergroup peer assessment

assessed the contribution of their group members toward the group tasks. However, the students were asked not to mark and discuss with each other individually and directly. Instead, each member scored others based on five criteria as in Table 7.1. Their scores were submitted to the teacher at the end of the semester. The teacher could then use these scores as consulting sources to differ scores of able and less able members in each group. This method made the students more comfortable because they did not have to be directly involved in judging their friends' products. Also, this technique helped persuade the teacher that she would not lose control of the classroom since she had authority to decide the students' scores (this is a technique to comfort the teacher because Cohen and Intili (1982) found that teachers are usually very reluctant to delegate all authority to students).

An overview of proposed treatments is presented in Table 7.2.

### 7.3.3 Data Collection Methods

The study applied three data collection methods which were questionnaires, interviews and email surveys.

#### 7.3.3.1 Questionnaires

At the completion of the semester, all students were asked to complete a questionnaire survey that asked the students for their opinions toward three issues of group composition, leadership traits and peer assessment activities. The questionnaire was structured in three sections. The first issue was investigated by two questions 'I am



satisfied with the formation of my group' and 'I want to be grouped in the same group next time'. The second issue was examined by two questions 'I prefer to have a group leader' and 'Group leader is important for the group operation'. The third issue was measured by five questions 'Being engaged in peer assessment helps me understand lessons more deeply', 'I am worried when expressing my opinions', 'Our group always try to discover information beyond the text', 'I am comfortable expressing my true point of view' and 'I am motivated to express my opinions'. The questionnaire also consisted of three questions that aimed to examine cooperation among the students in the two classes. These questions were 'My group members get along with each other very well', 'Members in my group always share tasks and are equally involved in making decision' and 'Working in my group is very enjoyable' (see Appendix 6 for the full questionnaire). Before being officially used in the present study, this questionnaire survey was piloted with 20 college students and 10 college teachers twice to examine its reliability and validity.

### **7.3.3.2 Interviews**

Ten students in each class were selected randomly to participate in interviews. All interviews were done during the last week of the semester. Each interview lasted between 15 and 30 min. A semi-structure interview scheme with a number of guiding questions was utilised. Examples are 'What do you think about your group?', 'How do your group members share tasks and ideas?', 'Do you think there should be a leader for each group?' and 'What do you expect from a group leader?' (see Appendix 7).

### **7.3.3.3 Email Surveys**

In each class, five students were invited to participate in email surveys. They were asked to freely write to the researcher to reflect any issue with which they were not happy. These students were also asked to provide an explanation about any issue that the researcher wanted to clarify after every lesson. To protect confidentiality of the information, the researcher asked these students to create a new email account that did not show the researcher their personal information. For instance, their email addresses could not have their names. Then, all email addresses were collected by a student and passed to the researcher. Whenever the researcher sent email to these students, she sent to the whole group and when the researcher received their emails, she could not recognise the authors of the emails. This method aimed to make the students confident and honest when reporting to the researcher.

## **7.3.4 Data Analysis**

For the questionnaires, means and standard deviations were examined. Assumptions of regressions were then tested. The results show that assumptions were met.

**Table 7.3** Differences in the students' perceptions of group formation in the control and treatment classes

Perception	Control class (mixed-ability group)	Treatment class (friendship group)	<i>t</i>	<i>p</i>	Effect size ( <i>d</i> )
	<i>n</i> = 72 M (SD)	<i>n</i> = 73 M (SD)			
I am satisfied with the formation of my group	3.08 (1.17)	3.53 (1.09)	2.40	.02*	.40
I want to be grouped in the same group next time	3.18 (0.74)	3.34 (0.69)	1.36	.18	

Note. Strongly disagree = 1; Disagree = 2; Undecided = 3; Agree = 4; Strongly agree = 5  
\**p* < 0.05

Therefore, to investigate differences in the students' perceptions, an independent *t*-test was conducted.

For qualitative data including interviews and email surveys, the analysis procedures were the same with those explained in Chap. 5.

## 7.3.5 Results

### 7.3.5.1 Group Formation

#### Questionnaire Results

Scores that the students in the two classes gave to those items that indicated their preference toward group formation are presented in Table 7.3.

The results report that for the first item 'I am satisfied with the formation of my group', the students showed significant difference between the two classes (*p* < 0.05). For this item, Cohen's *d* effect size of 0.4 was found. This was a medium effect (Cohen defines that an effect size of 0.2–0.3 is a small effect, around 0.5 a medium effect and around 0.8 a large effect). This indicates that the students in the treatment class were much happier with their group formation than those in the control class. For the second question 'I want to be grouped in the same group next time', there were no significant differences in perceptions between the two classes although the students in the treatment class reported more positive results than those in the control class (control, *M* = 3.18; treatment, *M* = 3.34). Results of these two questions obviously show that the students preferred to be grouped with friends rather than with strangers.

#### Interview Results

To shed more light on why the students were/were not interested in these two group formations, the researcher chose ten students in each class to interview. The first

**Table 7.4** Perceptions of the students about group effectiveness

Question	Control class			Treatment class		
	Positive	Neutral	Negative	Positive	Neutral	Negative
Do you think your group formation is effective?	31 %	34 %	35 %	70 %	22 %	18 %

question was ‘Do you think your group formation is effective? Why/Why not?’ Responses of the students were grouped into three groups as ‘Positive’, ‘Neutral’ and ‘Negative’ and the results are presented in Table 7.4.

Results presented in the table above show that the percentage of those students who had positive attitudes toward their group formation in the treatment class was much higher than that in the control class. This clearly indicates that the students in the treatment class were more satisfied when working with their group partners. Reasons the students in both control and treatment classes pointed out for wishing to choose the friendship group were centred on two main categories of ‘comfortableness’ and ‘responsibility’. The students tended to see themselves as better judges than the teacher in terms of choosing group members since they knew each other outside of the class. Some messages extracted from their interviews are presented in Table 7.5.

Reasons the students in both control and treatment classes provided for not being interested in working with strangers in mixed-ability groups were grouped into two main categories of ‘ineffective communication’ and ‘ineffective task assignments’. Some messages extracted from their interviews are presented in Table 7.6.

Furthermore, to examine whether the students were keen on working with the same group members next time, the researcher asked the interviewees to pick the names of five students whom they wished to be grouped with in the future. The results show that in the control class, no interviewees picked all five names from their current groups. In total, the students chose 31/50 names from their current groups. By contrast, in the treatment class, six out of ten interviewees picked all five names in their current groups. Only four of them picked some names from their current groups and some others from other groups. In total, the interviewees chose 42/50 names from their current groups. This finding showed that more students in the treatment class wanted to be grouped with the same members than those in the control class.

## Discussion

Results obtained from this study did not concur with what has been widely found in many other studies on cooperative learning which strongly argued that heterogeneous groups (high, medium and low) have been preferred and more beneficial to students (Johnson et al. 1984). Findings of the present study show that the students found a common voice that having close friends as teammates enabled them to communicate in a comfortable manner. Therefore, working with friends enabled

**Table 7.5** Reasons of wishing to work with friends

Categories	Exemplary extracts
Comfortableness	<p>It is very difficult to work with someone who you do not have idea about his ability, strong points, weak points and characters. Being aware of these points help the group assign suitable works to each member</p> <p>I am too embarrassed to discuss with someone whom I do not know. Friends accept whatever you say, even sometimes you say something silly</p> <p>It is easier to tell friends when things do not work. They are more understanding of you. It is quite easy for members to misunderstand each other if they do not catch your meaning</p> <p>I have problems sometimes. It is funny but I have to say that sometimes I cannot understand some friends who come from the Central part because their language is very different and their accent is hard to be understood</p> <p>Friends can help you if you are suddenly occupied by some urgent works. We even pass our works to each other so that we do not have to feel stressed. You cannot do this with strangers</p>
Responsibility	<p>Usually we share a number of courses together. So, we know who is a good-off versus who work hard</p> <p>We are adults and mature enough to choose our group members. I am pretty sure that the teacher does not know about each student better than us</p> <p>What happens if your group does not understand each other? Of course, you have to share responsibility and accept unsatisfactory results</p>

**Table 7.6** Problems when working with strangers

Categories	Exemplary extracts
Ineffective communication	<p>You know this class has students from different parts of the countries like South, Central and other provinces. We find it hard to work with those friends who use different accents and slang</p> <p>I don't say strangers are not willing to help when I need but it is a shame if you ask them to help when you are unsure if they are willing to do that but with friends, this is not a problem</p> <p>I find it hard to read strangers' thoughts because they may not think what I guess</p> <p>It is very easy to get hurt when working with people whom we don't know. For instance, once I made my point of view a bit strong then I found that some members stopped talking with me. I usually do that with friends and it doesn't hurt them at all. I need to be more careful next time</p>
Ineffective task assignments	<p>Oh my god . . . how can we submit our paper if some group partners don't complete and we dare not to push them because they may not like pushing</p> <p>I find our last paper was not good because we shouldn't have assigned the investigation task to Mai. She is not interested in going out to look for extra readings</p> <p>To find a good presenter for the group product we need to know who is capable to take over this job. It is not easy to trust somebody whom you just know for the first time</p> <p>Last time we got a low mark because Lan was unable to defend our points in front of the class.</p> <p>I told the leader that member could not do that but he did not trust me. Well. We will probably get a low score again</p> <p>I heard she is not suitable to the task but let's try</p> <p>It is very funny but I cannot predict she could not do it. It is my fault</p>

them to cooperate more (i.e. they talked and exchanged ideas with each other more). In fact, it would be an error to generalise that mixed-ability groups are always preferred in the West because there exist studies conducted in Western classes showing that students preferred to study with friends (Abrami et al. 1995; Mitchell et al. 2004) and friendship groups were demonstrated [in some studies] to have superior learning outcomes in comparison with random or ability groupings (Chauvet and Batchford 1993; Fraysse 1994; Kutnick et al. 2005; Zajac and Hartup 1997). This has resulted from the fact that all group formations have advantages and disadvantages (Gillies 2007). It is fair, however, to state that mixed-ability groups have been popularly applied in Western classes and they have been demonstrated to be more beneficial for students [at least for Western students] (Johnson et al. 1984; Slavin 1991). In Asian classrooms, due to a very limited number of studies examining this issue, it is hard to conclude whether Asian students have the same taste as Western students or not. However, the present study, Melles' study (2004) and Phuong-Mai's study (2008) found a consensus that mixed-ability groupings were not preferred in Asian classrooms. It can, therefore, be advocated that grouping formation recommended by Western cooperative learning theorists and researchers should not be generalised in Vietnam in particular and other CHC countries in general.

There must be different explanations for these contradictory findings. Phuong-Mai (2008) explained that the participants in her study preferred to be grouped with friends because CHC students consider 'trust' and 'identity' two most important factors for a group to work effectively. And only friends can give group members trustful and identity. That is why CHC students always tried to remain with close friends. In the present study the researcher used the typology of culture values of Schwartz (1990) as a theoretical framework to argue that Western students and CHC students prefer different group formations because they may have different 'learning priorities'. According to Schwartz's (1990) typology to compare cultural values, Western cultures are associated with autonomy (emphasising independence), egalitarianism (emphasising equality) and mastery (endorsing power and dominance over others and objects), whereas CHC cultures are associated with conservatism (endorsing being interdependent and mutually obligated to others), hierarchy (emphasising distinctions or status differentials among people) and harmony (maintaining good relations and stability among group members). These cultural characteristics lead to a situation that, when working in teams, Western learners endorse independent thought, encourage creativity and distribute equal opportunity in order to achieve power and influence over others. For them, good group members should be the ones who can enable each other to achieve the highest academic achievement because they might never be satisfied with the quality of work a teammate provides and they feel that it could always be improved upon (Glazer 2006). As a result, when choosing group partners, they tend to put cognitive ability as the first priority. Personal relationships appear to be neglected in this decision.

On the contrary, since CHC learners tend to be more interdependent and have strong obligations to each other, they may not consider capacity the foremost priority when choosing their group members. In fact, Glazer (2006) claims that in

**Table 7.7** Differences in the students' perceptions toward having a group leader in the control and treatment classes

Perception	Control class		Treatment class	
	(Without a group leader)		(With a group leader)	
	<i>n</i> = 72		<i>n</i> = 73	
	M	SD	M	SD
I prefer to have a group leader	3.86	0.79	4.00	0.85
Group leader is important for the group operation	3.89	0.94	4.14	0.80

*Note.* Strongly disagree = 1; Disagree = 2; Undecided = 3; Agree = 4; Strongly agree = 5

teamwork, collectivistic people accept that each individual contributes what he or she can to the fullest and people work together to ensure that the quality of work is acceptable and they are willing to sacrifice their own voice for the sake of group harmony. As a result, CHC students might overweigh affective factors more than cognitive factors when choosing their learning partners. For them, good group partners should be the ones who could help each other spiritually rather than academically. Therefore, they tend to be grouped with friends who can understand them easily. This explains why in collectivistic cultures, people have such sayings as 'Friendship valued higher than any other value except freedom', 'Friendship first, competition second'; 'Better one true friend than a hundred relatives'; 'It is better to be in chains with friends than to be in a garden with strangers'; and 'An old friend is much better than two new ones'.

### 7.3.5.2 Group Leadership Preference

#### Questionnaire Results

Scores that the students in the two classes gave to those items that indicated their preference toward group leadership are presented in Table 7.7.

The results showed that the students in both classes placed great emphasis upon the value of the group leader. Both classes agreed that they preferred to have a group leader and that the group leader was important for the success of the group.

#### Interview Results

The researcher mainly focused on asking the interviewees of both control and treatment classes two questions 'Do you think there should be a leader for each group?' and 'What do you expect from a group leader?' The students' answers were grouped into four main categories as presented in Table 7.8.

The findings revealed that the group leader could bring various benefits to a cooperative learning group and he or she could obviously help the group members

**Table 7.8** Reasons of having a group leader

Categories	Percentage	Exemplary extracts
Encouraging	65 %	<p>One of the responsibilities of the group leader is to keep the group on task all the time. Therefore, when the group has a leader, he or she would try to push group members and then we have to keep discussing</p> <p>I have worked as a leader and my experience is that sometimes the leader has a chance to talk to other members about their personal problems; then when I manage the group's talking, I could encourage these members to develop their strong points</p> <p>I think those members who are slower than others really need help of the leader because when working in a group, everyone wants to speak a lot and sometimes does not listen to others. If the leader is present, he or she would arrange some space for weak members to jump in</p>
Making decisions	70 %	<p>Usually the leader is a high-ability student; then he or she could give the final decision when all members don't know which way they should go</p> <p>I find that sometimes the leader does not have to work out the final decision. However, usually the leader could gain support from the whole group to agree which point of view they should use for the whole group</p> <p>I perceive that when we have a leader, the group makes decisions more quickly and precisely</p> <p>The leader does not necessarily always have to make the decision for the group, but he or she is able to unite members to come to a final decision easily</p>
Supervising	100 %	<p>Well . . . we know that everyone has to submit their tasks on time. However, not everyone always does the same. Therefore, our group leader always keeps an eye on who has and has not submitted their work</p> <p>If we did not have someone to push, instruction and requirements of the teacher were sometimes delayed</p> <p>When I work as a group leader, I remember that I usually have to lay out goals and guidelines. Otherwise, group members would be passive and get nothing accomplished</p> <p>Although, now each member has a job to do. However, sometimes we need someone who could combine our efforts. For example, without a leader who would be responsible for assigning members to works like collecting our writings?</p>
Keeping group harmony	80 %	<p>The leader can push lazy members to raise their hand</p> <p>Group leader is like a family father and group members are like kids. So, if the family doesn't have a father, then no one can settle arguments among kids</p> <p>The leader usually works hard to ease tensions whenever they arise in work group</p> <p>I think the group leader needs to know how to develop close personal relationships among group members</p>

cooperate with each other more effectively than when they worked in groups without a group leader. This is a very interesting point because it seems that cooperative learning researchers often entirely ignore such an important factor in designing cooperative learning strategies.

## Discussion

The participants in this study strongly supported the appointment of a leader in each group. This finding contradicts suggestions of almost all cooperative learning researchers because after examining all the cooperative learning strategies, the researcher found it clear that cooperative learning theorists do not mention group leadership as a necessary factor for successful cooperative learning groups. Cooperative learning researchers tend to suggest that the instructor should rotate roles within the group after the first activity to assure that all students experience a multitude of roles. This is especially useful if there is a series of week-long tasks for the group. Therefore, it is commonly seen that cooperative learning models suggest that individual team members should play different roles as group facilitator, timekeeper, recorder, checker, summariser, elaborator, research-runner and wildcard. Even Cohen (1994), an uncontested leader in the field of cooperative learning, advises that cooperative learning groups should not have a leader because it has some drawbacks. If the group has a strong leader, then group members tend to only listen and respond to the leader's directions, especially those who do not like to do any work and only like to 'ride on the coat-tails of others'. Consequently, all group members have limited opportunities to exchange ideas even though some of them may have valuable thoughts. Cohen claims that if the group has a leader, the leader should only act at the level of a facilitator who helps to ensure that everyone participates and prevents status struggles and domination by members of the group who have high academic or social standing. This role is different from the role of an authoritative leader who has control over the decision or the content of the discussion.

Researchers in different fields may have different explanations for these differences. This study applied the dimension of 'power distance' in the comparative culture model of Hofstede and Hofstede (2005) to explain that CHC countries belong to nations with 'power distance'. In these countries, members of institutions get used to the attribute of a hierarchical pyramid structure where power is distributed unequally. Therefore, there needs to be a leader wherever teamwork exists. This culture can commonly be seen in many contexts. In family, for example, the father leads and assumes an obligation to the family, while the children are expected to play supportive roles and express a sense of duty to the parents. The father tends to lead and define goals and the rest of the family members mutually work toward a common ambition for the family. In schools, according to Phuong-Mai (2008), power distance also has an important influence upon student relationships. Therefore, students are willing to accept unequal relationships which are characterised by the fact that each class has a prefect, several unit leaders and, indeed, even sub-leaders for small groups. Therefore, Vietnamese students are very familiar with having a leader



when they work in a group. This culture very much differs from that of people in nations characterised by small power distance cultures. In these places, democratic values support a 'participative leadership' style (Day et al. 2004; Dickson et al. 2003; Doel and Sawdon 2001) in which power tends to be decentralised among group members rather than remaining in the hands of one or more leaders. This is why group members usually shift their roles during the process of learning together.

Besides, the students' feedback revealed an interesting point that group members paid special attention to personal characteristics of the group leader. They preferred to have a leader who has a strong supervision and decision making capability. (The interview results showed that almost all interviewees wanted the leader to have these two characters.) Some messages extracted from the interviews were '... The leader must be able to manage the group and encourage the group to work toward one direction. I know it is hard but ... as a leader you must have leadership skills. Hmm ... our group is not that lucky'; '... I think we should change the group leader. We prefer to have someone who is more active, not necessary to be the best student in the group but needs to be able to control the group work'; and '... I do not know each other well enough, so I think we have a wrong leader. If the leader works better, I am sure our group members could do better'. These messages revealed that the students cared about how the leader could manage the group more than about how the leader could make academic contributions to the group. To be a good group leader, academic capacity was not the first criteria to be taken into account. This point was supported by Luo et al. (2008) who claim that when working in a team, CHC have a strong desire to have a competent leader. If the leader is able to manage the group, CHC staff are always willing to be loyal followers and willing to follow the leader. Phuong-Mai (2008) also claims that the Vietnamese students in her study preferred to have a leader who is skilful at interpersonal management rather than someone who has good cognitive capabilities. Such a person would know how to create group solidarity, interconnect group members and provide encouragement. This may be the reason why some students wrote emails to the researcher to complain about their group leaders. These students explained that they chose their group leader because they were impressed by his academic record but after working together for a while, they recognised that it was more important for the leader to have other soft skills like negotiation and management skills so that he could control group members within the group and communicate with outside groups to protect benefits for inside members.

### 7.3.5.3 Peer Assessment Avoidance

#### Questionnaire Results

To investigate if there was significant differences in perceptions of the students in the two classes toward peer assessment on any statement, the independent *t*-test was applied. Results of the *t*-test are presented in Table 7.9.

**Table 7.9** *T*-test results in comparing means between the control class and the treatment class

Perception	Control class	Treatment class	<i>t</i>	<i>p</i>	Effect size ( <i>d</i> )
	<i>n</i> = 72 M (SD)	<i>n</i> = 73 M (SD)			
Being engaged in peer assessment helps me understand lessons more deeply.	3.83 (0.89)	4.13 (0.73)	-2.25	.03*	-.37
I am worried when expressing my opinions.	3.93 (0.89)	3.21 (0.96)	4.72	.00**	.78
Our group always try to discover information beyond the text.	3.04 (0.86)	3.12 (0.90)	-0.56	.58	
I am comfortable expressing my true point of view.	2.75 (0.71)	3.34 (0.92)	-4.36	.00**	-.72
I am motivated to express my opinions.	3.10 (0.75)	3.15 (0.91)	-.39	.70	

Note. Strongly disagree = 1; Disagree = 2; Undecided = 3; Agree = 4; Strongly agree = 5  
\*  $p < 0.05$ ; \*\*  $p < 0.01$

An examination of Table 7.9 revealed that, in general, mean scores of the treatment class were higher than those in the control group on all items. This means that perceptions of the students in the treatment class about intergroup peer assessment were more positive than perceptions of those students in the control class about intragroup peer assessment. The significant difference between the two classes was found on three items ‘Being engaged in peer assessment helps me understand lessons more deeply’ ( $p < 0.05$ ), ‘I am worried when expressing my opinions’ ( $p < 0.01$ ) and ‘I am comfortable expressing my true point of view’ ( $p < 0.01$ ). This indicates that when intergroup peer assessment was applied, the students learned that peer assessment helped them understand lessons better and they felt less worried and much more comfortable expressing their opinions in front of others.

### Interview Results

The student interviewees in both classes were asked for their opinions about how much they enjoyed participating in peer assessment. Some main questions were ‘What do you think about peer assessment?’ ‘How do you feel when you present in front of other students?’ and ‘How do your group members share ideas?’ (see Appendix 7). After responses were obtained, the inductive content analysis was applied to clarify benefits and problematic aspects of peer assessment in both classes. The findings revealed eight main dimensions, of which four were identified as positive outcomes and four as negative outcomes. These dimensions are summarised in Tables 7.10 and 7.11.

Among all the issues presented in the Tables 7.10 and 7.11, the researcher paid special attention to the issues of criticism of friends and comfortableness because

**Table 7.10** General dimension: likes higher-order themes and illustrative raw data themes

Categories	Percentage	Exemplary extracts
Learn more	30 %	It's good to get to read other people's essays because it gives you another view to see how they have approached the question I think it is interesting to see the style others adopt and the similar ideas. Also, it makes me feel important and not just any old student in class
Comparison of standard	30 %	It is useful to read someone's work It's useful doing this marking others' assignments because it gives you a view on where you have done badly or well in your own assignment You can observe a wide range of styles and ideas and see where you are going wrong It aids one's own work. You can assess your ideas in relation to others I think it is a good idea because students often have ideas which differ from lecturers. It gives a quick insight into the subject area without having to waste time reading books A good point is that the peer assessment allows you to read someone else's assignment where you previously would have no idea about fellow students' writing styles and ideas Give a good idea of the standards of others work
Productive self-critique	60 %	You realise what markers are looking for (a new experience for me and very valuable) and are forced to acknowledge whether or not the factors which must be in your essay are present. It helps me see more clearly some of the skills I need to focus on in my essay writing. There are no cons. It just helps me identify necessary structures and approaches in my own work It is a good idea to include peer assessment on the essay assignment because we can understand the strengths and weaknesses of our own assignment better when viewing the others' assignment on similar topic. We can also understand our essay better by the different point of view from peers
Motivation	40 %	The fact that my peers' assignments encourage me to put more effort in Peer assessment makes me work harder on my own assignment in order to make it more understandable and interesting for the reader Friends' feedback encourages me to learn more deeply and I think it is necessary I never learn as much as I am doing these days. I have to. Otherwise, I become a fool in the group's discussions

various previous researchers regarded these issues as big barriers preventing CHC students from assessing their friends honestly (Fulop and Ross 2007). Besides, the questionnaire results in this study reported that the students in the control class gave very low scores ( $M = 2.75$ ) on the item measuring comfortableness in expressing true ideas compared to the scores the students in the treatment class gave to this statement ( $M = 3.34$ ). After analysing responses of the interviewees, the researcher

**Table 7.11** General dimension: dislikes, higher-order themes and illustrative raw data themes

Categories	Percentage	Exemplary extracts
Criticism of friends	87 %	<p>It's useful . . . but I find it very difficult to criticise someone's work especially with them being friends</p> <p>Hard to be objective – personal feelings and friendship obstruct. I don't like analysing and criticising friends' work</p> <p>The reason why I keep my questions for myself is . . . because I don't want to embarrass the writer or start arguments</p> <p>It is so hard for somebody to hear that they need to rewrite because I know they have tried their best</p>
Arbitrariness in marking	60 %	<p>There is some feeling of unfair judgement</p> <p>Although we have some knowledge there is no way we can criticise an essay – wrong references cannot be corrected</p> <p>It is difficult for a person to give a mark</p> <p>It is embarrassing because you are marking friends' work and you are bound to be too hard or too kind in marking. Also, how do you know if it (the essay) is good or rubbish</p> <p>A student, with individual exceptions I am sure, is not a credible grader. It may be good practice for a student to evaluate or critique another's essay, but this student would not know how they compared to the tutor. This evaluating student would not know if his or her grading was proficient</p> <p>I think it is hard to interpret the analyses of others and their accuracy because I have to read the texts written by someone who may have an entirely different thinking logic</p>
Discomfort	56 %	<p>I feel uncomfortable about another peer reading my work and even though it is anonymously marked I still feel pressured and awkward while writing my assignment</p> <p>Many students, like myself, feel uncomfortable having another student evaluate his or her paper</p> <p>My own experience is that assessing others' work gave me a good feeling of my own work. However, I feel I am assessed savagely by my peer</p> <p>As the person who writes the essay has a much more thorough knowledge than myself, I feel that it is almost inappropriate for me to be fairly critical in my own evaluation of the essay</p>
Time-consuming	45 %	<p>It can be slightly time-consuming, especially when there are a lot of other assessments due from other subjects</p> <p>Reading and trying to give comments are time-consuming</p> <p>Coincidentally, my marks provided by the student who marks my assignment are nearly the same as tutors, but no comments are made about this assessment either</p> <p>I do not have time to provide feedback because I have tons of works to complete</p> <p>I don't find the peer assessment necessary because we do not usually use feedback provided by friends. It is a waste of time to make feedback and read comments but do not use</p> <p>I honestly think peer assessment takes a lot of time</p>

found that in the control class, 56 % of the interviewees expressed that they were not comfortable and happy when their friends read their work. Some messages illustrating their complaints about this issue were: 'I want to keep my ideas in secret because other people may develop something similar. This could make my assignment become less unique'; 'I do not like reading other' work because they always think I read because I want to learn from them'; 'It is very interesting when my friend asks me why we share a lot of things similar. She may think I copied her ideas'; 'Marking friends' work is very hard because I may destroy friendship only because I give a wrong mark'; and 'I may hurt them because I do not know how to give comments in a nice way'.

By contrast, in the treatment class, when the interviewees were asked to describe their feelings when they criticised and were criticised by other members, many of them disclosed some reasons which were not seen in the control class. Specifically, 67 % of the students perceived criticisms as a positive feedback to improve the group essays. Some comments, for instance, were 'The group is not competitive at all. We simply help each other to discover what is not clear'; 'Nobody competes against the other'; 'I am sure that they just help me. That's why they suggest some solutions that I should apply to argue against other groups'; and 'I am fine to have their feedback. It is good to know in my group before explaining to other groups'. These responses show that when the students were put in a position where they knew they had to help each other to compete with people outside the group, they perceived critical comments not only as ways of negotiating harmonious relationships but also as ways of contributing effective ideas to understand the lessons. It is obvious that under such circumstances the students were much more willing to express their true point of view.

In addition to the questionnaire survey and interviews, the researcher also observed one focus group in each class to see what types of language group members used during their discussion and the encouragement and support group members gave each other when expressing ideas. The focus group in each class was observed closely twice and each time for 10 min. All related conversation was noted on the observation form (see Appendix 8). The researcher found that in the treatment class, the students tended to use 'we' instead of 'I' to confront other groups. Some students used words such as 'our enemy', 'our team' and 'our opponent'. The cooperation between group members in this class was also evident when a member discussed his or her feedback to other groups, he or she always looked at his or her group members and sometimes asked them to help via such questions '... is it right?'; 'We agreed that ..., did we?'; 'Lan, could you help finish what I just said?' Regarding encouragement and support, in the treatment class, whenever acknowledgement was given to the whole group, the members frequently reacted by immediately voicing their excitement, cheered, looked around to seek envious eyes, or even acted out some form of group ritual such as touching their fists with each other. The students also tended to encourage each other to express their own ideas openly so that the group could reach the most satisfactory answers. Types of statements the students often used included 'How about combining what you said and Lan's suggestion?'; 'Well done! We have lots of explanations'; and 'You should explain why and how in case we are asked to provide evidence'.

## Discussion

The application of *intergroup peer assessment* instead of *intragroup peer assessment* came from the idea that in reality Vietnamese students are very likely to be able to adapt to group discussions such as expressing opposing and conflicting ideas and arguing against others. However, this can only be done when they are put in a situation in which their face is saved by support from other members. Such a situation is usually created when the student does not have to express his or her point of view alone but it is based on agreement of other group members. Specifically, findings of the present study revealed that when intergroup peer assessment was applied, the scores that the treatment class gave for the statement 'I am comfortable expressing my true point of view' ( $M = 3.34$ ) were significantly higher than those in the control class ( $M = 2.75$ ). The  $t$ -test result shows that there was a significant difference between two classes on this statement ( $p < 0.01$ ), indicating that when intergroup peer assessment was applied, the students felt much more confident and comfortable discussing and interacting with their partners.

Furthermore, interview results reported that the students in the treatment class were less likely to be offended and concerned when criticising or being criticised by their friends. While the students in the control class considered critiques negative and annoying activities, the students in the treatment class considered true feedback constructive ideas to make the group product better. The cooperation among the students in the treatment class was also seen through the way the students use 'we' instead 'I' more often than in the control class. These findings demonstrate that when peer assessment is applied in Vietnamese classrooms, face-to-face discussion needs to be designed in a way which suits the learning culture of Vietnamese students. Vietnamese students are not likely to reject open discussions. However, they only do this effectively under conditions where they feel safe to express what they think. This study suggests that a powerful technique to get Vietnamese students involved in discussions should be a combination of both intragroup confirmation and intergroup confrontation.

### 7.3.5.4 Cooperation Among the Students

The study finally undertook a questionnaire survey to examine whether the students cooperated with each other better when they worked in groups that had their preferred conditions (formed by friends, managed by group leaders and applied intergroup peer assessment). Results are presented in Table 7.12.

The results revealed that the students in the treatment class reported more positive perceptions on all three questions. For the first question, the significant difference was found at  $p < 0.01$  level. This means that when the students were grouped in friendship groups, their group had a leader permanently appointed to manage the group tasks, and intergroup peer assessment was applied, they were influenced to get along very well with each other. As a result, they enjoyed working in their groups. For question two and three, although the difference was not

**Table 7.12** Differences in the students' perceptions toward cooperation between the control and treatment classes

Perception	Control class	Treatment class	<i>t</i>	<i>p</i>	Effect size ( <i>d</i> )
	<i>n</i> = 72	<i>n</i> = 73			
	M (SD)	M (SD)			
My group members get along with each other very well	2.76 (0.66)	3.07 (1.03)	-2.11	.00**	-.36
Members in my group always share tasks and are equally involved in making decision	2.76 (0.66)	3.04 (0.82)	-2.23	.06	-.38
Working in my group is very enjoyable	2.74 (0.69)	3.01 (0.87)	-2.12	.71	-.34

Note. Strongly disagree = 1; Disagree = 2; Undecided = 3; Agree = 4; Strongly agree = 5

\*\**p* < 0.01

significant enough to conclude that the two classes had a significant difference in perceptions about decision making and enjoying group work, the mean scores of the treatment class were more positive than those in the control class. This indicated that every student in the treatment class had fairer chances to be involved in the group's decision making and the students in the treatment class perceived cooperative learning was more enjoyable than did those students in the control class. In brief, findings of this study confirmed that friendship grouping, group leadership and inter-peer assessment were effective conditions that could enhance cooperation among CHC students. It is, therefore, worthwhile for reformers and instructors to consider the employment of these factors in cooperative learning lessons to motivate CHC students to learn cooperatively with each other better.

In conclusion, this study has attempted to develop strategies that could enable cooperative learning educators and reformers in CHC countries to address the issues of grouping formation, group leadership and peer assessment culturally appropriately. Regarding the issue of grouping formation, findings obtained from this study and some previous studies demonstrated that CHC students were more interested in working in friendship groups than in mixed-ability groups. CHC students believe working with friends could give them both personal and academic benefits. When investigating closely and deeply, the researcher found an interesting point that academic gains, from the students' points of view, were a consequence that resulted from good and harmonious relationships among group members. The findings revealed a number of cause (*good relationship among group members*) and effect (*academic gains*) relationships. For instance, the students reported that when they worked with friends, they could ask friends to help take over their work when they could not do it (help each other academically); when they discussed with friends, they would read what they thought (so they learned quickly); when they knew friends' capacities, they would assign tasks to correct persons (so group productivity was better); when they knew friends, they could push them to complete the task (they did not feel comfortable to do this with strangers). These cause-effect relationships made it clear that the students were

very interdependent. Group members' personal relationships determined how effectively they learned in a group. This might not be the case in the individualist culture because individualists tend to be independent in their thoughts and work. Therefore, when working in groups, individualists may not often care whether they could benefit from relationships with other group members. Glazer (2006) has reported an interesting set of contrast values between collectivists and individualists in that collectivists could accept an unsatisfactory quality of the work for the sake of personal relationships, whereas individualists would suppress personal relationships to achieve a satisfactory quality.

Group leadership preference was another value that cooperative learning reformers should take into account. The participating students of this study reported a strong desire to have a group leader in their group. From the students' points of view, the group leader could bring them various benefits that included encouraging group members to complete their work more effectively and arranging for group members to help each other when necessary. In addition, the leader could make final decisions when there were conflicts among group members. This subsequently created a harmonious working atmosphere among group members. This may be a surprising finding for Western researchers and educators in low power distance environments because they have often devalued this value but supported equal power delivery among co-workers. Vietnam is one of the countries that are characterised by high power distance. People with this cultural value have been embedded with an attribute that society has a hierarchical structure that is managed by a leader. Therefore, people should follow their leader's leading. Vietnamese people have a popular saying that '*Teamwork without a leader is like a snake without a head*'. Similar to the case of friendship grouping, group leadership has emerged as a strong desire of the students. Therefore, it is advisable that this value should be taken into account as a substantive principle of cooperative learning in CHC classrooms.

Finally, regarding the issue of peer assessment, this study has attempted to develop a strategy to interest the participating students in engaging in peer assessment practices. The technique was called *intergroup peer assessment*. Apart from principles of traditional peer assessments that require students to exchange feedback face-to-face and score their friends directly, this technique allowed group members to share their feedback to better understand their group products within the group first, then they could defend their group works together in front of other groups. As such, instead of exchanging feedback and evaluating each other individually, the students were put in a situation where they pooled everyone's contributions to better the joint product and supported each other to present the product as a group. The researcher developed this strategy based on principles of collectivist culture. Collectivists are not interested in individual peer assessment because they are always afraid of destroying a personal relationship and losing face if they criticise someone directly or cannot defend themselves in front of others. By contrast, when the students work in team and present a product as a team, these two scary feelings are, to a great extent, ensured not to happen because what they say and present does not come from their point of view but their group members. This



makes them comfortable because they would not offend any friend directly or be laughed at by other members. Findings obtained from the students' interviews show that active participation in peer assessment gave the students plenty of benefits because they were given many chances to reconfirm their knowledge (for bright students) and to be scaffolded to develop new knowledge that lies beyond their development zone (for less able students).

This study has offered additional insights into examining how to make cooperative learning more suitable to non-Western contexts. This is necessary because concern has been widely expressed about the dangers of cherry-picking educational practices from other countries and cultures (Phillips and Ochs 2003; Phuong-Mai 2008). There are still very few studies which tease out the operation of pedagogies in different cultures. There need to be more research across a variety of subjects and countries to address this concern. The present study makes a contribution that helps to fill the shortfall in the literature on pedagogy across cultures.

### ***7.3.6 Chapter Summary***

- Students play an exclusively important role in determining the success of learning reforms. They tend to either reject the reform or implement it improperly if the reform does not interest them, makes them uncomfortable and does not help increase their achievements.
- Cooperative learning consists of many principles and concepts that are in conflict with CHC students' learning culture. Researchers and reformers should pay special attention to three contrasting dimensions: mixed-ability grouping preference vs. friendship grouping preference, undervaluation of group leadership vs. group leadership preference and intragroup peer assessment vs. intergroup peer assessment.
- CHC students prefer friendship grouping because they highly value personal relationship and affection. Working with friends makes them feel comfortable in communicating, responsible for accomplishing shared work and effective in dividing group tasks.
- CHC students prefer group leadership traits because they are familiar with living and working in hierarchical pyramid structures. A group leader can bring various benefits to a group including encouraging and pushing group members to complete tasks on schedule, determining group decisions effectively and supervising group members to prevent them from neglecting group tasks, and keeping and promoting group harmony.
- CHC students prefer inter-peer assessment because this condition helps them avoid losing 'face', be confident in public speaking and limit conflicts with friends.
- To achieve success in implementing cooperative learning in the CHC context, it is strongly suggested that CHC students' voices need to be heard, their comments need to be taken into consideration, and some principles of the reform need, to a certain degree, to be modified.

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# Chapter 8

## Structural Constraints at CHC Education Institutions: Barriers Hindering Cooperative Learning and Strategies to Overcome

### 8.1 Introduction

According to the applied theoretical framework developed in Chap. 4, learning reform is influenced and shaped by various factors among which teaching and learning culture emerges as foremost. In addition to the impact of cultural elements, this chapter argues that the structural conditions of CHC institutions also exert a strong impact on the application of cooperative learning. In fact, compared to cultural factors, structural elements appear to have a loose link with classroom teaching and learning. Elmore (1995), therefore, states that changes ‘in structure are weakly related to changes in teaching practice, and therefore structural change does not necessarily lead to changes in teaching, learning and student performance’ (p. 25). This explains why policymakers and reformers tend to only care about how to make teachers and students change their practices but not about how to change existing institutional conditions to allow the reform to flourish. This undervaluation may come from a common thought that structural factors are fixed and unchangeable (e.g. to have small-size classes, teachers cannot simply cut down the number of students in their class; to help students move around the class to form cooperative learning groups, it is not easy to change the layout of traditional classrooms where tables and chairs are often permanently fixed; to have more material resources to support cooperative learning activities, it is not easy for CHC colleges to build up more libraries and spend money supplying resources from overseas). Consequently, when importing the reform, policymakers do not often take institutional elements into consideration but let teachers ‘live with the flood’ alone. They assume that teachers need to know how to manage the situation.

The failure of many cooperative learning reforms in CHC countries during the last two decades (as discussed in Chap. 3) has, however, demonstrated that this is an ineffective procedure of carrying out the reform. When teachers are left to ‘swim with the flood’ alone, they tend to either give up trying or only implement improper versions of cooperative learning (this problem has happened in the empirical study reported in Chap. 5 where the teachers tended to skip time-consuming cooperative

learning activities in order to deal with the pressure of completing the curriculum). This explains why in spite of non-stop reforms for many years, cooperative learning has never become a popularly practical methodology in CHC classrooms. Rather, it has always been referred as an alternative instruction in ‘demonstration’ and experimental lessons. This situation proposes that reformers should pay more attention to local infrastructural conditions when importing any reform. Fink and Stoll (1998) claim that it is always worthwhile to be cautious of institutional effects because many changes initiated in the name of restructuring have the potential to assist change in teaching and learning. In the case of implementing cooperative learning, if structural conditions of CHC classrooms cannot easily change to support cooperative learning activities, it would therefore be logical and effective for CHC teachers to be equipped with the knowledge and techniques to minimise these constraints. They will then be motivated to try the instruction more seriously and enthusiastically because they see a better chance for success. Developing such techniques is the main purpose of this chapter. In essence, the chapter aims to discuss major structural obstacles that hinder cooperative learning practices in CHC classrooms and how to overcome these constraints. Findings of prior studies that were conducted by both other researchers and the researcher revealed that CHC teachers and students often complained about a range of problems related to either the shortage or unsuitability of classroom facilities. Within the scope of this book, this chapter only focuses on discussing three major obstacles including large-size classes, curriculum coverage and limited material resources. The chapter will then report strategies to help CHC teachers solve these institutional constraints.

## **8.2 Institutional Barriers That Hinder Cooperative Learning in CHC Classrooms**

### **8.2.1 Class Size**

When cooperative learning is brought to CHC classrooms, educators usually have a special concern about class size. This is an issue because cooperative learning only works effectively in small groups of four or five students (Johnson et al. 1994). Research has shown that successful groups normally do not exceed five members, although exceptions can occur, because too large a group size invites unfair and debilitating labour divisions, allows some members to assume full responsibility, promotes subgrouping and makes group management a high priority (Petress 2004). This environment creates chances for many students to be left out and for ‘the social loafer’ to let the others do the work. Gillies (2007), for instance, claims that when groups are large (e.g. six to ten), members do not learn significantly more than students in ungrouped or whole class settings. Spahn (1999) adds that in large-size groups, students’ motivation and attitudes tend to be more negatively affected because their learning opportunities are more likely to be lost; thus they do not

feel as satisfied with the classroom experience as they would have in smaller classes. In general, these researchers argue that groups of three or four members are preferred to larger groups because members cannot opt out of the activity or loaf at others' expense. In small groups, students have more opportunities to interact and exchange ideas, thus enhancing their chances to learn (Vygotsky 1978). When groups are large, they are likely to resemble a whole class setting with fewer opportunities to interact and learn (Gillies 2003).

Classes at CHC colleges are often large, certainly in comparison with many Western countries. For instance, Kirkpatrick (1998) claims that Vietnamese classes contain 50–70 students, in China 50–60, in Japan 45 and in Korea 43. In such big size classes, if students are divided in groups of four or five, there would be 13–14 groups working simultaneously, and teachers would not have enough time to examine and monitor each group to ensure they are working effectively. When implementing cooperative learning in these large classes, CHC educators and students certainly face a number of difficulties.

As discussed in previous chapters, the researcher has so far conducted several studies to investigate and develop strategies to solve disjunctions between cooperative learning and teaching, learning and assessment practices at CHC education institutions. In these studies, the researcher also asked her participants for their opinions about problems that they faced when working with cooperative learning. Generally speaking, in every study all participants complained large-size classes were the hardest obstacle that caused them difficulties in conducting cooperative learning lessons. These difficulties were grouped into two categories of 'disturbing learning' and 'hard to manage lessons'. A list of exemplary messages that the participants complained about large-size classes is presented in Table 8.1.

### 8.2.2 Curriculum Coverage

This is another big and common problem facing teachers when implementing cooperative learning in CHC classes. This problem results from the pressure on quantitative measurements which strongly focus on the amount but not on the quality of studying at CHC education institutions. Biggs (1995) claims that curricula in CHC schools are designed in a particular quantitative format which sees 'any topic as important as every other topic, so that everything is taught and the student is grossly overloaded' (p. 41). In the case of Vietnam, Duggan (2001) notes that the curriculum has long been criticised for its overloaded composition. Both teachers and students are constantly under pressure to complete all lessons to achieve dissemination of a certain amount of knowledge within the scheduled time (Le-Van-Giang 2003; Tran-Huu 2003). If the teachers do not complete a lesson, they will need to complete it in the next lesson. Consequently, it is very common to see Vietnamese students being asked to have longer or extra lessons to complete every single lesson in the curriculum by the end of the semester. Both teachers and students acknowledge that this is important because each lesson has

**Table 8.1** Barriers caused by large-size classes in Vietnamese classrooms

Categories	Exemplary extracts
Disturbing lessons	<p>Every class has more than one hundred students who could drive you mad.            You cannot request them to sit still with their mouths shut during group work.            Could learning really take place under such a noisy classroom? (teacher)</p> <p>All tables are tightly packed together. My group often overhear nearby groups' discussions. (student)</p> <p>I even can't hear those members sitting at the other end of the table. (student)</p> <p>The noise around often makes me distracted from what I am reading. (student)</p> <p>I often have to stop the lesson to draw students' attention if the noise is too loud. (teacher)</p> <p>I feel sorry for those students who cannot interrupt their friends' talks to present their thoughts. (teacher)</p> <p>I often cannot hear the teacher's explanation even when she stands next to me. (student)</p> <p>It is time consuming because we always have to repeat again and again. (student)</p>
Hard to manage	<p>When the teacher joins one of the groups, that group would start the discussion.            When the teacher leaves the group, they start to gossip again. (teacher)</p> <p>Some group members are not self-disciplined when the teacher is not present. (student)</p> <p>When many people talk at the same time, it is hard for the group leader to manage the group. (student)</p> <p>It is not easier for the teacher when students work in group independently. I often have to try very hard to share my attention to every group. If not, they like talking about those things beyond the lesson. (teacher)</p>

some points that are assessed in exams. Due to the large amount of information contained in the curriculum, CHC teachers often just have enough time in class to complete all materials but not to investigate students' deep understanding or touch on any topics beyond the curricula. This leads to the situation that all students can do at the end of each semester is to try to memorise the information contained in the textbook or the teacher's words so that they can pass the exams.

Kember (2000) warns that such quantitative broad-based curriculum and a 'didactic spoon-feeding' approach create blocks preventing students from developing deep understandings or thinking critically as they proceed through the programme (p. 108). This type of curriculum certainly does not create a good environment to enhance cooperative learning activities because cooperative learning aims to encourage students to work in groups to find the type of knowledge that is beyond the text rather than only focus on and follow the content of the curricula. If students are only required to remember the text or memorise the teacher's words, they will not be motivated to engage in cooperative learning activities. Under pressure to complete such an overloaded curriculum, when implementing cooperative learning, CHC teachers are often put in a situation where they need to choose either breaking the lesson plan to have proper cooperative learning lessons or ignoring or simplifying cooperative learning activities to complete lessons on scheduled time (because



cooperative learning is fairly time consuming). Needless to say, teachers prefer the latter choice because their reputation and career development depend on their students' success on exams. Therefore, they will not take the risk of dropping out some lessons to have time playing with cooperative learning.

In the empirical studies that were conducted by the researcher and reported in previous chapters, the participating teachers and students expressed many complaints about how overloaded curricula caused them difficulties in implementing cooperative learning. Some exemplary messages are:

- *It is not easy to interrupt students' talking. When you see their passionate discussion, it means they are mainly on task and you think: 'Let them go on and give them a bit more time'. This might happen with several groups then at the end the time is already over.* (teacher)
- *... it usually takes around 15 minutes for students to settle in their groups; then the group needs some minutes to warm up. . . Eventually group work always burns my lesson plan.* (teacher)
- *Group work is fine after examinations when there is nothing left in the textbook. Otherwise, with such a tight teaching schedule but limited time, you cannot afford the luxury of group work. Maybe it could be done once in a while when a certain topic required plenty of sharing among the students.* (teacher)
- *We have to follow the curriculum. A certain amount of work needs to be completed each day.* (teacher)
- *Students need to complete the whole textbook before they take exams.* (teacher)
- *If we work in teams in class, then we have to do more lesson at home.* (student)
- *I like working with friends in the class but we need to complete our lesson first.* (student)
- *The workload these days drives me mad. I have no time to do anything else except going through all lessons to prepare for the coming exam.* (student)

### **8.2.3 Limited Material Resources**

In CHC institutions, materials are generally in short supply, and text books are often used as the primary and definitive written information resource. Teachers, therefore, do not often require students to consult other information resources but only remember what is written in the text and what the teacher says in the class. The restricted learning resources create two opportunities for students to adopt rote learning approaches and disinterest in cooperative learning activities. First, as the readings are very limited (one or two textbooks for a subject), teachers usually tell students exactly what to read and what they should pay more attention to, if not memorise carefully, as these sections are likely to be questioned in the exams. Second, limited readings turn CHC classes into places where usually only one point of view is presented. There are no other perspectives for comparison. This implicitly tells the students that there is only one right answer, so they do not have to question and discuss a point of view presented by the teacher or written in the textbook. In other words, under such circumstances teachers and institutions do not respect causal and analytic skills (Nisbett 2003). This leads to a problem where

CHC students often persist with intensive study and memorisation of texts and lecture notes rather than trying to question, discuss and develop different points of view. In fact, this is one of the reasons why CHC students are claimed to rely too much on books, not taking responsibility for their own learning and not understanding the concept of plagiarism (Robertson et al. 2000). In Thanh-Pham's study (2010), the participating students complained that they actually did not see any difference between cooperative learning and the traditional teacher-centred lessons in terms of improving their knowledge. This was because they were required to work on the same one or two textbooks and needed to remember the main points of each lesson to prepare for exams. The only difference was that in cooperative learning lessons, instead of going through the text alone, the students divided the text into small parts and helped teach each other. The participating teachers and students in this study expressed various opinions toward this issue. Some of these opinions are:

- *We don't usually have extra materials for students to consult. (teacher)*
- *Cooperative learning gives students opportunities to express their own points of view but I do not see many new ideas. All come from the text, so some bright students get bored because they already know. (teacher)*
- *Group discussions did not actually interest me much because we only focus on completing the textbook. (student)*
- *I wish we had more materials so that I can discover something different and bring to group discussions to impress other members. (student)*
- *If we have more readings, we will bring different perspectives to group discussions. (student)*
- *I don't see much difference between cooperative learning and traditional teacher-centred lessons because at the end of the day we are required to remember the text and the teacher's points. (student)*

In sum, large-size classes, curriculum coverage and material shortages appear to be the toughest barriers that significantly prevent the implementation of cooperative learning in CHC classrooms. It is not easy, even unrealistic, to reduce class size, redesign curricula and supply more studying resources because bringing about these changes is a complicated process that requires cooperation among stakeholders at different levels including schools, district and the government. Implementing these renovations also strongly depends on the economic status of each country. With an economy that is not very wealthy (most of CHC countries are classified as developing countries), it is not easy for CHC governments to cut their national budget to invest in enlarging their education institutions and employing more teaching staff (this would help reduce class size), redesigning the current overloaded curricula to prioritise cooperative learning activities and conducting more research and supplying more research documents to enrich the current reading resources. Therefore, to assist CHC teachers to overcome these constraints, it would be more effective and feasible if local teachers are trained and provided with strategies that help limit the impacts of institutional constraints. The researcher has attempted to develop these strategies and conducted an empirical study to test their effectiveness. The procedures and outcomes of this study are presented in the following section.

## **8.3 A Study to Develop Strategies to Minimise the Impact of Institutional Constraints on Cooperative Learning in CHC Classrooms**

### **8.3.1 *Participants***

Two classes of 300 students in Vietnam participated in the study. All students were 18 years of age (75 % female and 25 % male). The first class had 170 students and was used as the control class. The second class had 130 students and was used as the treatment class. The two classes were taught by two different teachers. The cooperative learning strategies employed were mainly based on the model of ‘Group Investigation’. Before the study was conducted, both the teachers and students were trained with necessary skills to implement cooperative learning successfully like those explained in Chap. 5.

### **8.3.2 *Procedures***

#### **8.3.2.1 Developing Strategies to Solve the Issue of Large-Size Classes**

To develop strategies to solve the issue of large-size classes, the researcher was aware from those studies conducted previously that if the teacher divided the class into 4–5-member groups working simultaneously, the teacher was unable to monitor all groups concurrently. Consequently, some groups took advantage of this situation and spent a lot of time gossiping. In contrast, if the class was divided in 9–10-member groups, group discussions were not distributed equally. It was found that only members sitting around the group centre had the chance to be involved in group discussions. All members sitting at the two ends of the group were almost left out because they could not hear other members and other members could not hear them either. Therefore, large groups did not often create opportunities for all members to participate in discussions equally. According to Vygotsky (1978), when students did not have a chance to be involved in interactions with others, they are limited in learning from each other’s scholarship, skills and experiences. The researcher assumed that when every group member was provided with an equal chance to be involved in discussion and group tasks, the group would interest students more and accordingly worked more productively. The technique the researcher used to involve all group members in group discussions equally then was to divide the class in 9–10-member groups and then divide each 9–10-member group into two smaller groups. These two small groups were asked to help each other to complete the group tasks. To determine if this technique was effective in terms of increasing cooperation among the students, results obtained from one class where big groups were not divided and from one class where big groups were divided were compared. Specifically, the technique to divide the students is described as following:

Table 1	Member 1	Member 2	Member 3	Member 4	Member 5
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*Space between two tables*

Table 2	Member 6	Member 7	Member 8	Member 9	Member 10
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**Fig. 8.1** Map of group members

### In the Control Class

The students were grouped in ten-member groups. Each group included two tables next to each other (as mapped in Fig. 8.1). Those members who sat at the far ends (members 1, 6, 5 and 9) were named ‘margin members’ and those members who sat in the centre (members 2, 3, 4, 7 and 8) were named ‘centre members’. Totally, there were 68 margin members and 102 centre members. To measure the participation degree of each group member, the researcher purposely asked all students to write their numbers on their questionnaire surveys. This information later helped the researcher trace who were margin members and who were centre members. During group work, the students at one table turned around to face their partners. Each group occupied a separate place and worked by themselves. All members of each group were required to discuss and share group tasks.

### In the Treatment Class

Each group occupied two tables next to each other (as mapped in Fig. 8.1). In total, there were 52 margin members and 78 centre members. Each ten-member group was divided into two five-member groups. Whenever the big group was assigned to a task, the task was divided into two parts, and each small group was in charge of one part. Each small group worked on their task for a half of the total time, and then they summarised what they had done and presented to the other group. This activity gave the students more than an opportunity to teach each other so that they could increase their presentation and oral skills. This would make them become more comfortable when they presented their group products in front of the class.

#### **8.3.2.2 Developing Strategies to Solve the Issue of Curriculum Coverage**

To develop strategies to solve the issue of curriculum coverage, it is not easy to work out an optimal solution because the teachers were required to follow what had been designed and scheduled by the universities and the MOET. The only strategy that the

researcher could work out to enable the teachers to both complete the curriculum and have some room to practise cooperative learning was asking the teachers to be selective with lessons they taught in class. Each textbook usually has main and subordinative lessons. Therefore, in the treatment class, the teacher was advised to spend more time lecturing and practising cooperative learning in main lessons because these lessons are more likely to be tested at exams. For subordinative lessons, the teacher was asked to instruct the students to work in groups by themselves outside the class. Then, each group took a turn to present or summarise their work in front of the class. This strategy gave the teacher more time to lecture and operate cooperative learning activities during the main lessons and also trained the students with self-managing, organising and public-speaking skills. Differently, the teacher in the control class was asked to go through every lesson as originally planned.

### **8.3.2.3 Developing Strategies to Solve the Issue of Limited Learning Materials**

To develop strategies to solve the issue of limited learning materials, in both classes the students were encouraged to search for information from a variety of sources including the Internet, experiments, reference books, pamphlets, magazines, maps, stamps, films, videotapes, sites (museum, historical remains, etc.) and experts on the subject. Although these sources are not as plentiful as those in advanced countries, it is still worthwhile for them to be considered for any subject. To encourage the students to consult these sources, the teachers were advised to set a scoring scale specifying what percentage of the final score was given to knowledge contained in the textbook and to information beyond the textbook and the teachers' lectures.

### **8.3.3 Data Collection Methods**

The study applied three main data collection methods which were questionnaires, observations and interviews.

### **8.3.4 Questionnaires**

The questionnaire consisted of two parts. The first part included two self-administered items that aimed to investigate the students' perceptions about the effectiveness of the group division strategy. These two items were 'I have a chance to be involved in group discussions' and 'Some members always dominate our discussions'. The second part consisted of three items which aimed at investigating students' perceptions of curriculum coverage. These items were 'I'm under great time constraint to prepare for exams', 'I find lessons interesting and enjoyable' and 'I am happy with this lesson plan' (see Appendix 9).

**Table 8.2** Total observations and the length of time spent on each student

Total	Control class	Treatment class
Total observations	$4 \times 5 = 20$	$4 \times 5 = 20$
Total length of time	$20 \times 3 \text{ s} = 60 \text{ s}$	$20 \times 3 \text{ s} = 60 \text{ s}$

*Note.* *s* second

### 8.3.4.1 Observations

Observations were only used to measure the effectiveness of the group division strategy. Observations took place with one focus group in each class. To make observations reliable, an assistant was employed to simultaneously observe with the researcher. When conducting observations, the researcher and the assistant stood at either end of the focus group and made sure that they stood far enough apart not to distract the group but close enough to hear their conversations. To observe issues related to group division, the researcher applied the observation schedule developed by Gillies (2003) but modified to make it more suitable to the present study. The schedule has two behaviour state categories: (1) group engaged behaviour (talking and sharing ideas with others; listening to others) and (2) individual behaviour (works alone on task; did not pay attention to others' talk) (see Appendix 10). Whole-interval sampling was employed. The students were observed for the full specified time interval of 3 s. A student's behaviour was coded as Group engaged behaviour/Individual behaviour only if the behaviour was exhibited for the full duration of the time interval. In each class, the researcher and the assistant observed the focus group four times. Each time, every single group member was observed five times. In total, there were 20 observations per each group member. The total observations and the time spent for each student can be seen in Table 8.2.

### 8.3.4.2 Interviews

Interviews were used to investigate the teachers' and students' perceptions toward two issues of curriculum coverage and limited reading resources. At the completion of the semester, ten students in each class were selected randomly to participate in interviews that were completed within 1 day. Each interview lasted between 15 and 30 min. The researcher utilised a semi-structure interview scheme with a number of guiding questions. Examples are 'What do you think about peer assessment?', 'What do you feel when you present in front of other students?' and 'How do your group members share ideas?' (see Appendixes 11 and 12).

### 8.3.5 Data Analysis

The procedures used to analyse data in this study were the same with those applied in empirical studies reported in previous chapters.

**Table 8.3** Differences in perceptions of the margin and centre members toward participation in the control class

Perception	Margin members	Centre members	<i>t</i>	<i>p</i>	Effect size ( <i>d</i> )
	<i>n</i> = 68	<i>n</i> = 102			
	M (SD)	M (SD)			
I have a chance to be involved in group discussions	2.73 (0.78)	3.36 (0.76)	-4.83	.00**	-.81
Some members always dominate our discussions	3.72 (0.83)	2.93 (0.75)	6.02	.00**	.99

*Note.* Strongly disagree = 1; Disagree = 2; Undecided = 3; Agree = 4; Strongly agree = 5  
 \*\* *p* < 0.01

**Table 8.4** Differences in perceptions of the margin and centre members toward perceptions of participation in the treatment class

Perception	Margin members	Centre members	<i>t</i>	<i>p</i>
	<i>n</i> = 52	<i>n</i> = 78		
	M (SD)	M (SD)		
I have a chance to be involved in group discussions	3.61 (1.06)	3.70 (0.91)	-0.57	.57
Some members always dominate our discussions	3.06 (0.87)	2.91 (0.82)	1.05	.29

*Note.* Strongly disagree = 1; Disagree = 2; Undecided = 3; Agree = 4; Strongly agree = 5

### 8.3.6 Results

#### 8.3.6.1 Big Group Division

##### Questionnaire Results

Results obtained from the questionnaires in the two classes are presented in Table 8.3.

The results in Table 8.4 show that in the control class, the margin members disagreed slightly with the question ‘I have a chance to be involved in group discussions’ (*M* = 2.73), while the centre members agreed with this question (*M* = 3.36). The *t*-test result shows that there was a significant difference in perceptions of these two groups of students toward this question (*p* < 0.01). Also, the effect size of this question was very high (*d* = .81). For the second question, the margin members agreed with the question that ‘Some members always dominate our discussions’ (*M* = 3.72), whereas the centre members slightly disagreed with this question (*M* = 2.93). The *t*-test result also shows that there was a significant difference in perceptions of these two groups of students toward

**Table 8.5** Frequency of behaviour states of each student in the focus group in both control and treatment classes

Students	Control class		Treatment class	
	<i>n</i> = 10		<i>n</i> = 10	
	Group behaviours	Individual behaviours	Group behaviours	Individual behaviours
Student 1	6	14	11	9
Student 2	19	1	13	7
Student 3	12	8	15	5
Student 4	15	5	16	4
Student 5	9	11	14	6
Student 6	8	12	17	3
Student 7	16	4	11	9
Student 8	13	7	17	3
Student 9	6	14	14	6

this question ( $p < 0.01$ ). Similar to the first question, the effect size of this question was very high ( $d = .99$ ). These results demonstrated that the margin members had less chance to participate in group discussions and the centre members dominated group discussions.

After the students were subdivided into two smaller groups, it seemed that every member had a fairer chance to participate in group discussions. Therefore, in the treatment class the results in Table 8.4 reported that both groups of the margin and centre members gave similar scores for the question ‘I have a chance to be involved in group discussions’ ( $M = 3.61$  and  $M = 3.70$ , respectively). The t-test result showed that there was no significant difference in perceptions about this issue between the two groups. When being asked if they saw group discussions were dominated by some particular members, both the margin and centre groups reported neutral attitudes ( $M = 3.06$  and  $M = 2.91$ , respectively). The t-test result also reported that there was no significant difference in perceptions about this issue between the two groups in this class. This means that the margin members had an almost equal chance to participate in group discussions as the centre members.

### Observation Results

The assistant observer was blind to the purpose of the study. Interobserver reliability ranged from 85 % to 100 % across the behaviour states (i.e. Group behaviours of control class, 87 %; Individual behaviours of control class, 90 %; Group behaviours of treatment class, 97 %; Individual behaviours of treatment class, 100 %). The frequency of behaviour states of each student in the focus group in both classes is presented in Table 8.5.

The results in Table 8.5 reported that the margin members in the control class had very high numbers of individual behaviours compared to number of group



**Table 8.6** Differences in the students' perceptions of lesson plan in the control and treatment classes

Perception	Control class	Treatment class	<i>t</i>	<i>p</i>
	<i>n</i> = 170	<i>n</i> = 130		
	M (SD)	M (SD)		
I'm under great time constraint to prepare for exams	4.05 (1.00)	3.05 (0.89)	0.67	.04
I find lessons interesting and enjoyable	3.05 (1.10)	3.35 (0.55)	2.33	.17
I am happy with this lesson plan	3.04 (1.17)	3.75 (1.05)	1.11	.08

*Note.* Strongly disagree = 1; Disagree = 2; Undecided = 3; Agree = 4; Strongly agree = 5  
 \*  $p < 0.05$ ; \*\*  $p < 0.01$

behaviours. By contrast, the centre members had a high number of group behaviours and a low number of individual behaviours. This demonstrated that compared to the centre members, the margin members had very limited opportunities to be involved in group discussions. In contrast, in the treatment class the results show that the number of group behaviours and individual behaviours of the margin and centre members was very similar. This means that the chance for all members in this class to participate in group discussions was shared equally.

### 8.3.6.2 Curriculum Coverage

#### Questionnaire Results

Differences in scores for items that measured the students' perceptions toward the strategy of redesigning the lesson plan in both classes are presented in Table 8.6.

The results reported that in general, the students in the treatment class were more satisfied with the strategy of redesigning the lesson plan. The significant difference was found for the item 'I'm under great time constraint to prepare for exams' with  $p < 0.05$  level. This means that when the teacher was asked to be selective with lessons taught in class and let students work on some lessons by themselves outside the class, the students were given much more time to prepare for exams. It could be argued that they got this benefit because when working in groups outside the class, each student did not have to complete the whole lesson but was only in charge of a part, and then presented to each other. This way actually benefitted them twice. First, they saved more time to work on other assignments, so felt less stressed when exams came. Second, they were given a good chance to use language to present their product to other group members. This helped reinforce their understanding and subsequently develop complicated cognition (i.e. deep understanding of the text, argumentative and comparative skills) (as Vygotsky claims). For the last two items, although a significant difference was not found, the mean scores in the treatment class were markedly higher than those in the control class. This meant that the students in the treatment class were much happier with the method their teacher applied to teach each lesson.

## Interview Results

The teacher and ten students in the treatment class were invited to participate in 30-min interviews at the end of the semester. From the teacher's point of view, she first felt reluctant with this strategy because she broke the lesson plan. Her supervisor (the teacher in charge of supervising all teachers teaching this course) often checked the lesson plan book (after each lesson the teacher was required to sign in this book reporting what she had taught in the class) and asked why some lessons were not taught. The teacher then had to explain. Also, the teacher was not confident about letting the students manage their group (she was more used to the 'spoon-feeding' culture). However, the teacher stated that after witnessing a couple of presentations and observing all the hard work each group put in their products, she felt relaxed. The teacher was especially impressed by the extra work and information beyond the textbook and her lectures that many groups put in their presentations with an aim of attracting other groups' attention and making the class more interesting.

From the students' point of view, most of them stated that when working together on lessons outside the class, their groups faced a problem of managing and dividing group work. However, this problem was in general solved smoothly by their group leaders. The students revealed that the biggest benefit they got when the teacher redesigned the lesson plan was 'time flexibility'. This flexibility allowed the students to negotiate with each other to find suitable times for every group member to work on their own and group work.

### 8.3.6.3 Limited Reading Resources

The 2 teachers and 20 students (10 in each class) were asked for their perceptions about the method that the teachers used to enrich reading resources. The students expressed an overwhelming consensus that searching for relevant information on the Internet, from television and radio programmes and experts in the field took a lot of their time. Therefore, the researcher focused on asking the interviewees several questions about whether this course affected other courses. Surprisingly, the respondents in general explained that they could deal with the challenge. Some interviewees commented that they did not feel overloaded at all because their group made use of each member's strength very well. Before conducting any topic, their group sat down and made a list of all resources that they should approach. They then discussed who suited what. For example, the high-tech member was assigned to searching the Internet, the member with good English was asked to look for information from English materials, and the active member was asked to conduct interviews or fieldwork. Interestingly, all interviewees responded that it was worthwhile doing such research because it helped them gain broad and deep understanding of any topic that they were required to work on.

In addition, the interview responses also revealed that groups actually competed with each other very strongly. It was this competitive culture that pushed all groups to look for extra materials as much as possible so that they could prepare high-quality presentations to better those prepared by other groups. Some messages expressing how groups competed with each other were '*We needed to find something interesting. Otherwise, we will be defeated by other groups*'; '*If we don't have anything new and different, we will lose our face in front of other groups*'; and '*Finding some unique points is the key to make our group product better than others*'. Dirksen (1990), Ferraro (1994), Flowerdew and Miller (1995) and Irwin (1996) mentioned this cultural value in their prior studies when claiming that CHC students had very strong hidden competition; they had a high desire to demonstrate their ability and often tried to avoid the loss of face at all costs.

Another noticeable point emerging from the interviews was that although this strategy benefitted the students in different ways as aforementioned, it created a gap between wealthy and poor students. A couple of students told the researcher that they wanted to explore more interesting information but they did not have either the Internet or television and radio (usually these students came from rural areas and face many financial difficulties). Therefore, they found it hard to make significant contributions to their group work. This was an issue that future reformers should take into consideration when designing learning activities.

### **8.3.7 Discussion**

To achieve success in learning reform, it is always worthwhile taking the impacts of structural conditions into consideration and attempting to develop strategies to minimise their effects. Evaluating how infrastructure can impact learning, Smylie and Perry (1998) reason that when organisational barriers are removed, teachers can teach more effectively, and when teachers teach more effectively, students' learning will increase. As discussed through all chapters in this book, cooperative learning involves many dimensions of dialogues that are different with cultural values in CHC countries and certainly require different patterns of infrastructural conditions to support its activities. Of all the structural constraints in CHC classrooms, large-size classes, curriculum coverage and limited reading resources seem to be the most salient. Reformers have often not attempted to make adjustments to these factors to enable them to be supportive to cooperative learning practices because they appear impossible to change. However, the empirical study reported in this chapter attempted to work out techniques to limit the influence of these constraints. And the findings reported positive outcomes. This study only addressed three major constraints. There are of course more infrastructural issues that cooperative learning reformers need to examine. Future research should continue this exploration and propose more strategies to solve these problems.

### 8.3.8 Chapter Summary

- Structural constraints are often unevaluated and neglected by reformers because they appear to have loose connection with change in teaching and learning.
- Cooperative learning reformers in CHC classrooms tend to ignore infrastructural problems because they see no possibility of adjusting these barriers.
- When teachers do not have strategies to overcome infrastructural barriers, they tend to either reject the reform or implement it improperly.
- Of many institutional constraints hindering the application of cooperative learning in CHC classrooms, it appears that large-size classes, curriculum coverage and limited reading resources are the most salient problems.
- To solve the issue of large-size classes, educators can use the technique of subdividing a big group into two smaller groups. This strategy was demonstrated to get all group members in equal discussions, so making them more interested in group work.
- To solve the issue of curriculum coverage, educators should be selective with what they teach in class.
- To overcome the limitation of readings, educators should encourage and allow students to seek various resources instead of prioritising only textbooks.

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## Chapter 9

# Conclusion: Reflection and Integration

### 9.1 Rethinking the Importation of Educational Reforms to CHC Classrooms

Fundamental changes in various aspects of the world have been noticed in the last two decades under the impact of global forces, especially technology and the use of information and communication technology (ICTs). Many researchers see globalisation as a transcendental process which disregards national boundaries and regional variations. The classical society that has clear-cut borders is flowing away and the world is becoming interconnected and full of movement and mixture, contact and linkages, and persistent cultural interaction and exchange (Lewellen 2002). Globalisation is perceived as the ‘death knell’ of the nation-state and, therefore, a major factor in the erosion of national and cultural identities (Water 1995). In fact, it is hard to define the direction of global flows because each part of the world has some impact on the other. In the field of education, the direction, however, is commonly seen from the West to the East/Asia or from developed countries to developing and undeveloped countries.

The flow bringing educational practices from the West to Asia happens because, historically, nations in this region were characterised by long-lasting wars (e.g. Vietnam was colonised by China, France and America, in some instances for thousands of years. Malaysia was colonised by the British for more than a hundred years. Singapore and Hong Kong were dominated by the British for many centuries). Therefore, education in this region was ignored and not promoted for a long time. It was not until the late twentieth century when almost all nations in this region became independent and started to develop economically that education became the focus of attention. To respond to rapid economic developments, almost all Asian countries started calling for educational reforms to train their citizens with skills that are required by global employers. To implement change quickly and limit the amount of time required to undertake research, educators in these countries have tried to import educational policies, theories and practices produced from the West as a drive to quickly modernise the educational systems. Post-positivism has

increasingly become a dominant perspective in the current development of education in this region. It is very clearly and easily seen that various overlooked fields including cognitive development, learning approaches and styles, learning environment, problem-solving, motivation and metacognition in this region have been characterised by the adoption and application of North American and European models of learning (Keeves and Watanabe 2003; Ng 2009).

However, pedagogy is not just a science of instruction that stands alone and produces the same products in a different context. Rather, pedagogy is seen as a culture or set of cultures of which effectiveness and sustainability are not independent of other factors which, according to Thomas (1997), include *politics, economics, society* that determine the development and existence of a particular pedagogy, *professionalism* that ensures the future quality of a pedagogy and local *culture* that determines the adaptation of a pedagogy in a new context. Thomas (1997) also emphasised that among these factors, the influence of local culture is very important because it determines the longevity of a new pedagogy. This influence is even stronger in countries that have a rich cultural history like CHC countries. In these countries, Confucianism has left a significant historical legacy and embedded in the mentality of the peoples for many centuries. Many Confucian values nowadays still play dominant roles in East Asian life despite the striking in roads of modernisation and westernisation (Alt 1994; Jia 2001). Therefore, it is not easy for CHC peoples to replace Confucian values by new values. If any change that conflicts with CHC values is imposed on CHC teachers and students, it is likely that they only accept changes at the surface level (e.g. changing their behaviours and actions) but not in their beliefs. It is also noticed that CHC nations are very actively involved in preserving their own cultures and identities. CHC politicians act according to the mottos that emphasise foreign cultural elements that can be borrowed and adapted into their local system but are stopped from demolishing their own cultures (Thomas 1997). These two conditions guarantee that globalisation should not cause the 'death' of national and cultural identities of CHC nations. Therefore, it is strongly suggested that when implementing imported reforms, CHC educators need to consider the notion of appropriateness carefully. It would be wise if educational researchers in these countries develop local models of pedagogy and explore local wisdom and practices with regard to socialisation and educational processes (Renshaw and Power 2003).

Unfortunately, historically, educational reformers in these countries have, in reality, often ignored cultural heritages when importing outside practices (Thomas 1997). This leads to the failure of various educational reforms. The failure of cooperative learning in many Asian classrooms that was reported in Chap. 3 of this book is an example. In essence, the chapter reported that the failure was caused by both local institutional constraints and mismatches between local culture and cooperative learning principles. The main local institutional constraints included crowded classes with limited space, curriculum coverage and limited reading resources. Mismatches were seen between the principles of cooperative learning and cultural beliefs of Vietnamese teachers and students. For instance, while cooperative learning researchers believe that the teacher should play a role in assisting

students to develop their own knowledge, CHC teachers believe that students only learned when they receive knowledge from teachers (Messier 2003; Zakaria and Iksan 2007). While cooperative learning researchers believe students should be assessed qualitatively, CHC teachers tend to assess quantitatively (Biggs 1991). Furthermore, while cooperative learning researchers expect learners to be active and create new knowledge independently, CHC students are often more familiar with waiting for detailed instructions from the teacher (Tan et al. 2007).

These constraints and mismatches make it clear that adopting policies, theories and practices across cultures without recognising their distinctive historical and cultural dimensions risks certain degrees of failure. Policies borrowed from the West do not guarantee results. Therefore, it is advised that pedagogy developers should take into account both the global impact and local culture. It would be wise for CHC educators to review the authenticity of imported educational practices in order to adapt them to the local contexts because these contexts are complex, messy and constrained by sociocultural conditions (Ng 2009). In other words, intercultural pedagogy developers should follow the motto of ‘global thinking, local teaching’ that puts emphasis on local needs and local methodology so that the new pedagogy is not Western wine in an Eastern bottle (Qiao and Tan 2008).

## 9.2 An Applied Theoretical Framework to Implement Educational Reforms in CHC Countries

This book has attempted to propose an applied theoretical framework that could help reformers achieve more success in changing current teacher-centred learning practices at CHC education institutions. This framework was developed based on four critical lenses developed by Ng (2009) and central to the Activity Theory (Leont’ev 1978; Vygotsky 1978). In brief, this framework claims that to achieve any reform, educational reformers need to take into account responsibilities, influences of and relationships between different factors and actors at different levels. These factors and actors include existing local practices and rules, policymakers, school administrators, teachers, institutions and students. Noticeably, implementers (e.g. teachers and students) are the ones who are required to implement the change but they should not be forced to give up their interests and beliefs when adopting the new practices. If new practices are imposed on implementers, it is very likely that implementers will reject the changes (Fullan and Stiegelbauer 1991; Fullan 1991). Reformers should be aware that students are not just receivers of the reforms but also negotiators of their interests during the reformative process (Corbett and Wilson 1995; Ng 2009). Underpinned by these guidelines, the framework conceptualises that to promote cooperative learning and student-centredness in CHC classrooms, *there needs to be a change in factors that have influence on CHC students’ learning practices and adjustments of cooperative learning principles to fit desirable learning values of CHC students* (*‘desirable learning values’ will be explained later*). In addition, strategies



*that could assist teachers to deal with local institutional constraints need to be developed.* The following section will discuss how these change, adjustments and strategies could be determined to support changes in learning of CHC students.

### **9.2.1 Changing Influential Factors**

Findings of the empirical studies reported in this book have shown that teaching and assessment are two key influential factors on learning. When these two factors changed, cooperation among the students also changed. In particular, when the teachers adopted student-centred and cooperative learning principles in lecturing and managing the class and when assessment practices were designed as ill-structured tests, the students were influenced to employ more student-centred and cooperative learning practices. They, for instance, became more interdependent (e.g. group members looked for help from each other before approaching the teacher; they valued and consulted each other's opinions), more accountable (e.g. group members became responsible for their tasks and everyone showed their positive thinking about others' evaluation), more eager to meet with each other (e.g. the students worked outside the class more), more careful in communication (e.g. group members knew how to encourage each other better) and more engaged in processing group products (e.g. group members became less offended when other group members corrected their works). These changes revealed that a change in teaching and assessment practices brought about a positive change in all five elements that Johnson and Johnson (1975) require for effective cooperative learning (positive interdependence, individual accountability, promotive interaction, interpersonal and small-group skills and group processing).

Now a question raised would be *how to achieve a change in teaching and assessment?* Similar to the case of changing the learning approach, to achieve any change in teaching and assessment, reformers need to communicate with actors at different levels. First, to change the instructional approach, it is strongly proposed that there needs to be cooperation between teachers, policymakers and students. It was evident in the study reported in Chap. 5 of this book that the teachers were constantly disinterested in adopting the new practices because they faced many obstacles. These were teaching load, overloaded lesson plans, pressure of students' success on exams, students' unfamiliarity with and disinterest in student-centredness and institutional constraints. To overcome and minimise the impact of these barriers, there needs to be the involvement of people from the national, district and individual levels. The foremost important obstacle, however, is the teacher's beliefs. When the teachers believe they should be the ultimate source of knowledge, students are then discouraged to actively engage in and practise self-learning activities. For instance, the study reported in Chap. 5 demonstrated that when the teachers did not have belief in students' capacity, they had different ways to exert their authority over students. As being required by the author, the participating teachers of this study agreed to change teaching activities in class but their decisive role in important learning

activities still remained. Consequently, the students still needed to wait for 'yes' from the teachers before approaching something new. What the students could learn at the end of the day mainly remained in the textbook and the teacher's lectures. They did not feel confident about writing and analysing what did not emanate from the teacher. This is certainly not the defining feature of cooperative learning and active student-centredness. The study then found that when the teachers were exposed to the advantages of student-centred activities carefully and assisted by culturally appropriate techniques, they could to some extent change their attitudes and beliefs. They started to trust the students' self-organisation and managing skills. They also gave students more freedom to play with the text and used more praising comments to encourage the students to develop their complex cognition.

Second, to change assessment practices, it is recommended that education policymakers should act first because they are the ones who often determine the type and content of assessments in schools (especially in CHC nations where the education system is highly centrally driven). Empirical findings of the study reported in Chap. 5 have demonstrated that if the MOET issued a policy requiring mandatory application of ill-structured tests instead of well-structured exams, the students would be moved to change their learning practices significantly. Such a policy has been demonstrated to be effective elsewhere. When Singapore set the main goal of its education in the twentieth century as developing critical thinking and creativity, all schools were required to use project-based tests as their main assessment because this test creates more opportunities for students to develop their creativity (Yeong and Ng 2009). Besides, in order to achieve a change in assessment methods, it is certainly important that teachers should change their attitudes from seeing knowledge as a one-way transmission to believing that students can and need to go beyond what they know from the class and textbook. When teachers develop this radical attitude, they would be encouraged to replace well-structured tests by ill-structured assessments that often require students to strongly cooperate with each other to achieve advanced knowledge that is often beyond individual students' capacities.

In summary, to achieve any educational reform, education reformers should always put the reform in a complexity where there are influences of and relationships between various factors that have connections with learning. Among these factors, reformers should pay special attention to the interdependent relationship between the three pillars of education policymakers, teachers and students. Once these three actors cooperate to implement the change, the success of reforms is assured. To capture the state of educational reforms in Asian countries, Ng (2009), Ball (1990) and Ng and Renshaw (2009) generalise that reform policies and plans can be effectively and efficiently implemented to actually change practice and improve outcomes; however, what the current discussion on reforms in the region has failed to capture is messy realities of influence, pressure, dogma, expediency, conflict, compromise, intransigence, resistance, error, opposition and pragmatism in the policy process. Therefore, Ng (2009) strongly suggests that policies for reform in this region require a more participatory and negotiated approach involving dialogue among different stakeholders including national, district, school, classroom and even individual levels.

### 9.2.2 *Modify Reforms to Fit Desirable Learning Values of CHC Students*

Renshaw (2002) argues that teaching and learning processes cannot be analysed in isolation from the values that are privileged in a culture at any particular historical moment. As discussed in the first section in this concluding chapter, educational reforms in CHC countries are heavily influenced by local cultural values, especially those originating from Confucian culture that started about 500 B.C. in a divided China, and, over the last 2.5 millennia, it has influenced dominant cultural values in Eastern Asia, including China, Vietnam, Japan, Korea, Taiwan, Hong Kong and Singapore. It is seen that no matter how much and how quickly CHC nations have modernised and westernised their economy and society, many Confucian values nowadays still play an important role in the peoples' life and thoughts (Alt 1994; Jia 2001) and seem hard to change. Reforms therefore, to some extent, need to be modified to fit these local values. Reformers, however, may get confused about what principles of the reform should be modified to fit what type of local values. The author borrows Hofstede (2001)'s cultural typology to clarify this confusion. Hofstede claims that there are two types of cultural values, *desired values* and *desirable values*. *Desired values* are associated with behaviours and attitudes in daily practice and belong to the outer layer of the structure. These values are more subject to change. *Desirable values*, on the other hand, include the classics and principles of a culture and thus belong to the beliefs and values that stay at the inner layer of the structure. The inner layers are not only more enduring and stable than the outer layers but also exert a paramount influence on the outer layers. To change the *desirable values*, it may take quite some time because as Marzano et al. (1995: 164) argue 'beliefs and perceptions' of individuals exist in a 'paradigm'; therefore, it would be extremely difficult to use external forces to break the culture in this paradigm. Usually when implementers are forced to change these cultures, they tend to reject the reforms (Fullan 1993). Therefore, to implement reforms successfully, reformers should have techniques to change *desired values* to match requirements of the reform but modify the reform to fit *desirable cultures* because they are hard to change.

In this book, the author developed strategies to change some *desired values* of the Vietnamese students to respond to requirements of cooperative learning. For example, ill-structured assessment and intergroup peer assessment were used to influence the students to increase their interactions and communication. The technique of dividing each large group into two smaller groups so that the students could share discussion and decision making equally was developed. To enable teachers to overcome the problem of managing many cooperative learning groups in large-size classes simultaneously, the author has proposed the technique of shifting from individual supervision to group facilitation (as discussed in Chap. 5). This book, however, argues that there were three *desirable values* that exerted a strong influence over many learning attitudes and behaviours of the students and seemed hard to change. Therefore, instead of forcing students to

change these values, reformers should modify cooperative learning principles to fit these values. These values were friendship attachment, group leadership preference and harmony.

### **9.2.2.1 Friendship Attachment**

It has been generally recommend that cooperative learning learners should be grouped in mixed-ability groups because mixed-ability groups benefit students more than other types of group formation (Watson and Marshall 1995). However, this notion was found to be ineffective in empirical studies reported in this book. The students reported negative attitudes toward mixed-ability group composition and listed many problems that affected their studies when working with unacquainted group members. For instance, they felt uncomfortable and embarrassed to share ideas with those whose personalities they were not clear about. They also stated that it was hard for them to assign tasks to the correct members because they did not know about each other's strong and weak points. This led to a problem where when working with strangers, the students shared tasks less and were not involved in making decisions equally. This was evident that compared to Western learners, CHC students were more attached to friends. This may come from the contrasting cultural dimension of 'individualism vs. collectivism' between Westerners and Easterners. For Westerners, people are expected to develop and display their individual personalities. Therefore, they endorse independent thoughts and are not so concerned about the types of group members they work with. In contrast, Asians are collective and act mostly as a member of a group such as the family and a religious group. They emphasise interdependence and obligations over capacity. They see harmony among group members as an important condition to study well. Therefore, for Asian students, good group partners should be the ones who could help each other spiritually rather than academically. This explains why in collectivistic cultures, people have such sayings as 'Friendship is valued higher than any other value except freedom' and 'Friendship first, competition second'. This makes it clear that friendship attachment is a typically traditional culture that has been embedded in the mentality of the Vietnamese for many centuries. Therefore, if students are forced to change this culture, they are very likely to work ineffectively. This suggests that reformers should consider friendship composition as a necessary principle that should be applied in cooperative learning classes in Vietnam and other CHC countries.

### **9.2.2.2 Group Leadership Preference**

Group leadership is usually ignored by Western cooperative learning researchers because they do not see any benefit that a leader can bring to the group (Cohen 1994). However, for CHC students, leadership is a necessary condition to form effective teamwork. Findings of prior studies found in the literature and some

empirical research documented in this book revealed that CHC students were very familiar with group leadership because a group leader has always existed in their teamwork. For instance, CHC students always worked in ‘to’ (small group) that was managed by a leader at all schooling levels. This culture was also applied at the university level whenever they worked as a team. The students in the empirical study reported in this book commented that for their groups to work better, group tasks should be assigned and managed appropriately by a group leader. The students also revealed desired characteristics that they looked for in a group leader. These characteristics included good academic performance, being active and having good management skills. When a group leader had these characteristics, he or she was able to bind group members together well. It was also noticed that the students weighted personal characteristics of the group leader as more important than his or her academic capacity. This occurred because CHC students are often referred to as being willing to sacrifice their own interests for the sake of the harmony of the group. Therefore, they need a leader who is able to manage group members rather than a leader who can only inspire them academically.

Culturally speaking, the leadership trait resulted from the cultural dimension of power distance in CHC countries (Hofstede 2001). People in these countries accept that there is an order in society. Therefore, they must behave according to five fundamental relationships of Confucianism: emperor over subject, father over son, husband over wife, elder brother over younger and elder colleagues over younger colleagues (Spreitzer et al. 2005). There is an old Chinese proverb saying ‘Juniors and seniors have their ranking’. Importantly, CHC countries prize stability and harmony (Pan 1994). Therefore, they believe that if a group is managed by a leader, it will become more stable and harmonious than groups without any member in charge of managing the group. This culture is opposite to Western beliefs because Western culture proposes that the group only cooperates well when every member is equal in power (Day et al. 2004; Dickson et al. 2003). Therefore, group leadership is certainly not preferred by Western cooperative learners. As such, similar to the friendship attachment culture, leadership is a *desirable cultural value* and is naturally accepted as a ‘must have’ condition to form an effective group among CHC students. Findings of the empirical study in this book reported plenty of benefits that the students could gain from the group leader (e.g. keeping harmony, supervising, involving all group members in making decisions and motivating group members). This evidence suggests that cooperative learning reformers should include leadership as a main principle to form successful cooperative learning activities in Vietnamese and other CHC classrooms.

### 9.2.2.3 Harmony

Harmony is the essence of Confucian theories of social interaction (Chen 2001). It is of paramount importance in Confucian culture to such a degree that it is viewed as the cardinal cultural value in Confucian societies (Chen and Starosta 1997). CHC students have a tendency to establish a harmonious relationship and try to avoid

conflicts as much as they can. In studies reported in this book, harmony did not emerge as a crucial issue that was easily seen. However, after conducting a deep investigation, the author found that this cultural value was actually the ultimate reason that determined the adaptation and rejection of many cooperative learning practices in Vietnamese classrooms. For instance, the students refused to participate in face-to-face discussions and peer assessment because they were afraid of destroying harmony with their friends. Also, keeping harmony was the reason why the students preferred to work with friends and highly respected group leadership. The students chose friendship groups because friends usually understand and sympathise with each other better than strangers do. Therefore, friends are more likely to create a harmonious working environment than strangers. Similarly, the Confucian theories say that harmony only exists in an ordered society in which everyone is aware of their roles within the social hierarchy and behave accordingly (Zhu 2008). Individuals' compliance with their appropriate social roles creates a harmonious society. Therefore, a group must have a leader because the leader guarantees bringing harmony to the group.

In essence, we can see friendship attachment, group leadership preference and harmony cultural traits that lie in the deepest layer of the onion-shaped culture paradigm and influence other factors on the outer layers. They are therefore hard to remove. Interestingly, these values appeared to be separate but actually had a close connection with each other and they together determined how cooperative learning should be designed to be adaptive to the CHC context. Noticeably, saying this does not mean that these *desirable values* are unchangeable because culture is not a static concept (Ailon 2008). Cultural values are closely associated with changes in a group's social ideology, economic and technological development, interaction between cultures and so forth. In fact, under the impact of global forces, since the early twentieth century Confucian cultural values have gone through dramatic changes (Zhu 2008). However, it is once again noticed that the process of changing *desirable values* always takes a long time.

That is why Schein (1992) claims that basic assumptions like *desirable values* can be changed if reformers apply his model of psychological dynamics. (This model mainly says that the process of changing basic assumptions has four main stages. First, people need to be shown details disconfirming data that report a crisis in their old working practices. Then, these disconfirming data are linked to certain responsible people to show them that they are making mistakes. This action would make these people feel anxious and guilty about their way of doing things, so they will think about giving up their old habits and ways of thinking, and learning some new habits and ways of thinking. However, to influence people to adopt new practices, researchers need to show them the effectiveness of new practices. After people are convinced that new ways of doing things will bring about better results, they will start getting rid of their old practices and adopt new ones. Here, people enter a phase of building new assumptions called the 'cognitive restructuring' phase. In this phase, people cognitively redefine some core concepts in the assumption set.) However, Schein warns that it is extremely hard to remove these

assumptions. Therefore, it would be more practical and less time consuming if cooperative learning reformers consider modifying cooperative learning activities in order to avoid conflicts with desirable values.

It is also noticed that although these desirable values are ‘must have’ conditions to increase cooperation among the students, they hold disadvantages that prevent students from developing new knowledge. For instance, working with the same friends may limit opportunities for students to meet and work with new people who may have new perspectives and ideas that friends do not have. Consequently, the same group members may produce boring and narrow essays. Similarly, if groups have a hierarchical leader, the leader may not take group members’ points of view into consideration but suppress group members from expressing their own ideas. In this way, the priority to maintain harmony may stop students from benefiting from diversity and differences. Students are always afraid of hurting their friends or breaking their friendship, so they may not dare share their points of view. These constraints raise an issue where ideally reformers have techniques to maintain these desirable values while reducing their negative impacts on learning.

### ***9.2.3 Developing Strategies to Assist Teachers to Deal with Local Institutional Constraints***

In addition to changing factors that have effects on learning and modifying reforms to fit desirable cultural values of CHC students, to achieve a success in learning reform in the CHC context, reformers also need to develop strategies to enable local teachers to overcome local institutional constraints. Elmore (1995) claims that the relationship between institutional constraints and changes in teaching and learning practices are weak; however, they can determine the success of reform. Institutional constraints are varied depending on the nature of reform. In the case of implementing cooperative learning in Vietnam, large-size classes have emerged as the most important obstacle and so have received a lot of attention and concern from the local teachers and students. In general, class size is always a big issue in almost all CHC classrooms (Jacobs and Loh 2003). Crowded and limited space classes in these countries hardly allow local teachers to have cooperative learning groups of four to five students as suggested by cooperative learning researchers. Therefore, many CHC teachers have given up trying the reform. Unfortunately, in the history of educational reforms in CHC countries, researchers often did not take such an institutional constraint into account because they usually took it for granted that institutional constraints are impossible-to-change blocks. It implicitly suggests that reformers should take some risks when implementing practices that do not fit infrastructural conditions of the local context. However, the empirical study reported in Chap. 8 of this book has successfully developed the strategies to enable CHC teachers to deal with large-size classes, curriculum coverage problem and



limited reading resources. The success of developing such strategies proves that it is always worthwhile and possible if reformers are aware of institutional problems, then endeavour to develop techniques to help teachers surmount the barriers. Once reformers take this issue into consideration, the success of reforms is better ensured.

Table 9.1 summarises findings of all empirical studies the author has conducted during the last 5 years. In essence, the table summarises the characteristics of the learning approach that prevails in CHC classrooms (these characteristics represent teacher-centeredness), strategies that the researcher attempted to develop in several empirical studies to influence CHC students to adopt cooperative learning (these strategies have been documented throughout this book) and characteristics of new learning practices that were achieved after the application of these strategies (these characteristics represent cooperative learning).

### 9.3 Contributions and Limitations

This book has made a significant contribution to the development of a so-called outcomes theory. This outcomes theory is the applied theoretical framework that aims to enable reformers to promote cooperative learning in the CHC context. The framework suggested strategies to design teaching and assessment practices to increase cooperation among CHC students. It also proposed techniques to solve disjunctions between principles of cooperative learning and the learning culture of CHC students and to make cooperative learning more adaptive to institutional conditions of CHC colleges. The framework clearly pointed out who needs to do what to achieve a change in learning for CHC students. Noticeably, according to this instructional framework, the change is only achieved if there is cooperation among different actors at different levels including students, teachers, education administrators and policymakers. Besides, learning reforms should be treated as ongoing processes along which mismatches between cooperative learning and the local sociocultural context are discovered gradually, and then strategies to match these mismatches need to be developed and revised so that eventually cooperative learning becomes adaptive to the local context.

The instructional framework and designing principles developed in this book are not just theoretical instructions alone but very practical and applicable. This is the case because the framework and all designing strategies were first designed based on theories and findings of prior studies found in the literature, then tailored and tested through several empirical studies conducted in the real context of Vietnam. In doing so, they carried a close link between theory and practice. This applicable character is very important because Edelson (2002) claims that at its heart, education is a design endeavour. Teachers design activities for students, curriculum developers design materials for teachers and students, and administrators and policymakers design systems for teaching and learning. If the ultimate goal of educational research is the improvement of the education system, then results that speak directly to the design of activities, materials and systems as



**Table 9.1** A summary of how Vietnamese students changed their learning practices to cooperative learning under the impact of strategies developed in empirical studies reported in this book

Characteristics of the current learning approach employed by CHC students	Strategies developed to change the current learning approach to cooperative learning	Characteristics of the learning practices that were achieved after the application of the strategies developed
The surface learning approach predominates	1. Strategies to assist CHC teachers to promote cooperative learning	1. Changes obtained after teachers were assisted by techniques to enhance cooperative learning
The teacher is seen as the definite source of knowledge	Train teachers to apply cooperative learning and give them opportunities to raise comments during the implementation process (i.e. frequently organise workshops and give personal coaching)	Teachers engaged in many behaviours regarded as helpful and supportive of group endeavours
Students are seen as individual learners and passive knowledge receivers	Always take teachers' suggestions and recommendations into consideration and make necessary modification of the reform	Teachers patiently listened to groups' discussions and provided hints to extend students' activities and understanding
Students rarely participate in information exchanging and mutual supporting	Carefully explain to teachers about proper and effective cooperative learning activities	Teachers trusted students' organising and managing capacities and willingly empowered them to manage group work
Students tend to care only about individual achievement	Assist teachers to be more involved in students' learning process as a facilitator and less involved in making decisions as an authoritative instructor	Importantly, teachers did not suppress but encouraged students' critical judgement and saw this as constructive feedback
Peer feedback and valuations are devalued	Regulate students to limit seeking teachers' assistance as an individual but as a group only when the group cannot work out the answer	Students were involved in fewer verbal behaviours regarded as unsupportive of promoting group cooperation (i.e. questioning, short responding and interrupting) but had more verbal behaviours that reflect effective and productive interactions among group members (i.e. elaborative and cooperative behaviours)
Communicative, analytic, argumentative and cooperative skills are undervalued, even ignored	Instruct group members to help each other and make sure all members understand the group's tasks clearly so that any member could respond to the teacher when being called	
Students are reluctant to participate in group work and lack skills to work in teams	Teachers must develop learning tasks and activities that aim to develop students' high-level knowledge. To have time to design this type of	

(continued)

**Table 9.1** (continued)

Characteristics of the current learning approach employed by CHC students	Strategies developed to change the current learning approach to cooperative learning	Characteristics of the learning practices that were achieved after the application of the strategies developed
	<p>activity, teachers need to give up supervising students individually but facilitate students in groups</p> <p>Students should be given hints prepared beforehand to gauge each other's understanding instead of passively waiting for the teacher's question</p> <p>Teachers need to use praise frequently to encourage students to develop complex cognition</p> <p>Assessment should change from mid-semester or end-of-semester true-false and multiple-choice tests to formative assessment that creates opportunities for discussion and peer instruction</p>	
	<p>2. Strategies to design assessment practices that could enhance cooperation among CHC students</p>	<p>2. Changes obtained after assessment practices changed from well-structured to ill-structured assessment</p>
	<p>Eliminate well-structured assessment that aims to evaluate students' low-level knowledge (i.e. memorised and factual knowledge) and can be completed by individual students (i.e. individual multiple-choice test)</p>	<p>Group members shared equal opportunities to talk, make decisions, evaluated each other's ideas, supported each other by willingly giving help, elaborative explanations and directions, valued group benefits more important than individual achievements and enjoyed working with each other</p>
	<p>Apply ill-structured assessment that aims to evaluate students' complicated knowledge (i.e. analytic, comparative and argumentative capacities) and can only be completed by joint efforts (i.e. group multiple-choice tests, group essays or projects)</p>	<p>Able and less able students supported and valued each other's contributions</p>

(continued)

**Table 9.1** (continued)

Characteristics of the current learning approach employed by CHC students	Strategies developed to change the current learning approach to cooperative learning	Characteristics of the learning practices that were achieved after the application of the strategies developed
	3. Strategies to modify cooperative learning principles to fit desirable learning cultural values of CHC students	3. Changes obtained after the application of modified cooperative learning principles
	Mixed-ability grouping was replaced by friendship grouping	Students became more comfortable in communicating with each other, more responsible for accomplishing shared work and more effective in dividing group tasks
	Role-rotating grouping principle changed to leader-leading grouping rule	Group members were encouraged and pushed to complete tasks on schedule
	Intergroup peer assessment was applied instead of intragroup peer assessment	Group decisions were made more effectively Group had more harmonious environment
		Students avoided losing 'face', became confident in public speaking and were not afraid of conflicts with friends
	4. Strategies to assist CHC teachers to overcome institutional constraints	4. Changes obtained after the application of the strategies to deal with institutional constraints
	To overcome the problem of large-size classes, students were formed in large groups which, then, shared the group task and presented/ explained to each other	All group members were given an equal chance to be involved in group discussions and interaction, leading to an equal improvement in cognitions and understanding
	To deal with the issue of curriculum coverage, the teacher was asked to be selective with lessons taught in class. Only main lessons were lectured carefully and students were asked to work on subordinate lessons by themselves outside the class and then present in front of the class as presentations	Students had more time to prepare for exams, so became less stressed when exams came. They then found lessons more enjoyable

(continued)

**Table 9.1** (continued)

Characteristics of the current learning approach employed by CHC students	Strategies developed to change the current learning approach to cooperative learning	Characteristics of the learning practices that were achieved after the application of the strategies developed
	To enrich limited material resources, students were required to look for extra sources instead of only depending on textbooks	<p>Groups strengthened their cooperation more because they needed to cooperate well and self-manage to complete the task without the teacher’s assistance and supervision</p> <p>Students needed to spend extra time seeking various material resources but had a good opportunity to develop deep understanding about any topic they were asked to work on</p> <p>Group members also became more cooperative because they got to know each other better when looking for and sharing information with each other</p>

happened in empirical studies reported in book are the most useful results. In reality, it is very common to see practitioners complain that they are unable to apply results of educational research. The reason is that there is often a wide gap between theory and practice because reality is often more messy and complex than what theorists see and capture. This is different from theories yielded in the empirical studies reported in this book because all theories developed in this book provide educators and designers with clear implementation guidelines and directly applicable research products. Therefore, they are very likely to be able to be applied and used in reality.

On the down side, this book faces some limitations. The biggest limitation is the generalisability of the applied strategies and theoretical concepts developed in the book. As explained in Chap. 1, this book uses Vietnam as a case study to represent other CHC countries. This was mainly because the author did not have opportunities to conduct empirical studies in other CHC countries. The author acknowledges that Confucian cultural values in CHC countries have now changed at different degrees subjective to social, cultural, economic and political developments in each CHC country. Therefore, to maximise the generalisability of these applied strategies and theoretical concepts, the author has tried to consider and taken into account cultural values that are still seen to be existing in all CHC countries and social, cultural and economic development trends that have been reported to be occurring in the majority of CHC countries. However, the author

understands that these empirical findings and theoretical concepts may not, to some extent, be suitably applied in and correctly generalise all CHC contexts. This is a gap that future research should fill.

The second limitation is related to data validity of empirical studies reported in the book. The participating teachers and students were, in general, very helpful. Therefore, the author had very few problems associated with collecting data and asking for help from these participants. However, modifications of the strategies were mainly made based on feedback from the participants. Therefore, during each intervention, the author had to ask the students to do several interviews and surveys. As questions in surveys and interviews were sometimes used repeatedly (although the author tried to change the order of questions and reword questions and statement items to make them sound different), the participants, to a certain degree, felt bored having to answer similar sounding questions. Therefore, they might have answered some questions without careful consideration and thought. Likewise, during observations, although the author and the assistants tried to stand at a distance from the observed groups as much as possible, some teachers and students still noticed the presence of the observers. Therefore, they might not have behaved naturally. This caused some Hawthorne effect (if participants feel that they are receiving special attention from the researcher).

The third limitation this book owns is that the applied framework developed in this book aimed to increase cooperation among the Vietnamese students. Therefore, it does not guarantee to improve students' academic achievements because it would be subjective to conclude that the more cooperative the students become, the better the academic gains they will achieve. In the literature, various studies have found contradictory findings about the effectiveness of many teaching and learning approaches. For instance, it is common to see educators argue that teacher-centredness turns students into passive knowledge receivers and less engaged in learning, but Mok (2006) claims that a teacher-dominated pedagogy can promote learning and engagement. Also, many researchers claim that Asian students are rote learners so study ineffectively (Ballard and Clanchy 1991; Burns 1991), but Biggs (1993b) and Tang (1991) found that the passive learning approach of Asian students helps them study more effectively than many Western counterparts. Therefore, although cooperative learning has been proved to increase students' academic achievements in a wide range of Western institutions (Johnson et al. 1998), future research needs to be conducted to measure if the framework and strategies developed in this study truly increase CHC students' academic achievement.

The last issue the author would like to raise is not really a limitation of the book but a common problem that the author herself and many other cooperative learning researchers have faced. Being aware of this problem would help future researchers work out effective solutions to overcome before they bring cooperative learning to CHC classrooms. This issue was the rearrangement of lesson plans to prioritise cooperative learning activities. As explained in Chap. 7, curriculum in CHC institutions usually consists of a large amount of lessons and is heavily centralised by the top level. It was, therefore, hard for the author and the participating teachers to select and cut down some lessons in class so that the students could work in teams

for joint projects. The author tried to closely work with the participating teachers to carefully design learning tasks that were basically based on the mandated programmes and textbooks. In many cases, the teachers actively reconsidered conventional lesson plans and transformed these into a new teaching format where group work was central. The author then checked the learning activities to ensure cooperative learning quality and research criteria. The teachers always had to plan lessons carefully in order to catch up with the scheduled teaching agenda and assure that the execution of tasks would go according to designs and plans. All heads of the faculties where the interventions were conducted expressed strong concerns about missing lessons. Fortunately, the author had a great support from all teachers to design lessons in accordance with the requirements and suggestions of the author. It would be a problem for cooperative learning researchers if teachers are not supportive because conducting cooperative learning often requires a huge amount of extra work that teachers do not usually have to do.

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# Appendix 1

## Observation Form

(For teachers)

Sheet No: .....		
Date: .....		
Task No: .....		
Class: .....		
<u>Language</u>	<u>Pronoun used</u>	<u>Types of questions</u>
	(I?, We?)	
<u>Encouragement + Support</u>	<u>Negative</u>	<u>Positive</u>
	(Compete, reject ....)	(Sympathize, sharing...)
Number of students contacted:		

## **Appendix 2**

## Cooperative Learning Perception Questionnaire

### A. Demographic information

1. Age: .....
2. Gender (please tick):  Male  Female

### B. Your experience about cooperative learning

*(Please circle the most appropriate choice according to your point of view)*

Strongly Disagree	Agree	Undecided	Agree	Strongly Agree
1	2	3	4	5
1. Group members gave each other time to talk and make suggestions				1 2 3 4 5
2. Group members treat each other with respect				1 2 3 4 5
3. The opinions of other's are valued				1 2 3 4 5
4. Group members seek help from each other before asking the teacher				1 2 3 4 5
5. Group members are free to talk and share ideas with each other				1 2 3 4 5
6. Everyone has a say in decisions				1 2 3 4 5
7. Group members give suggestions and help when needed				1 2 3 4 5
8. Every member is encouraged to do best work				1 2 3 4 5
9. Group members often do extra work outside				1 2 3 4 5
10. Group work is fun				1 2 3 4 5
11. Group work is enjoyable				1 2 3 4 5

## **Appendix 3**

## Behaviour Observation Forms

Name of student:.....

Group:.....

Date of observation: .....

<b>Behaviours</b>	<b>Week ...</b>	<b>Week ...</b>	<b>Week ...</b>	<b>Week ...</b>	<b>Total</b>
Cooperation behaviours					
Non cooperation behaviours					
Individual on-task behaviours					
Off-task behaviours					

# Appendix 4

## Cooperative Learning Perception Interview Questions

1. Do you like working in your group? Why/Why not?
  - Do you like your group mates?
  - Are you happy with every group member's contributions?
2. What are the main reasons that make you like/dislike working in your group?
3. What are your perceptions about your group formation?
4. How are you usually grouped in other courses?
5. Do other members respect your contributions?
  - Do you have a chance to express your works?
  - Are your works added to the group works?
6. How do you feel when your works are corrected by others?
  - Do you feel hurt?
  - Do you appreciate their corrections?
  - Do you think group members should correct works for each other?
7. Are you happy with the results you receive from this course? Why/Why not?
  - Are you happy with group assessment? Why/Why not?
  - Do you think you may get better scores if you study alone? Why/Why not?
8. How could group work be improved?
  - What do you recommend to group students?
  - What do you recommend to assess students in groups?
9. Do you often ask your friends questions beyond the text?
10. When reading texts, do you often play with the meaning of the text?
11. How do you often summarize to understand texts?

# Appendix 5

## Criteria to Assess Contributions of Group Members

### *Criteria for assessment*

The person actively participated in group discussion

The person was well-prepared for all tasks

The person actively contributed ideas for the completion of group tasks

The person showed a genuine concern for both the task and the welfare of the group

The person played a part in developing ideas to complete group assignments

### *Scoring rubric*

9.0–10.0: Outstanding contribution and leadership

7.0–8.5: Superior contribution

5.0–6.5: Moderate contribution

3.0–4.5: Occasional contribution

1.0–2.5: Present but no contribution

## **Appendix 6**



# Cooperative Learning Perception Questionnaire

## A. Demographic information

1. Age: .....

2. Gender (please tick):  Male  Female

## B. Your experience about cooperative learning

*(Please circle the most appropriate choice according to your point of view)*

Strongly Disagree	Agree	Undecided	Agree	Strongly Agree	
1	2	3	4	5	
1. I am satisfied with the formation of my group					1 2 3 4 5
2. I want to be grouped in the same group next time					1 2 3 4 5
3. I prefer to have a group leader					1 2 3 4 5
4. Group leader is important for the group operation					1 2 3 4 5
5. Being engaged in peer assessment helps me understand lessons more deeply					1 2 3 4 5
6. I am worried when expressing my opinions					1 2 3 4 5
7. Our group always try to discover information beyond the text					1 2 3 4 5
8. I am comfortable expressing my true point of view					1 2 3 4 5
9. I am motivated to express my opinions					1 2 3 4 5
10. My group members get along with each other very well					1 2 3 4 5
11. Members in my group always share tasks and are equally involved in making decision					1 2 3 4 5
12. Working in my group is very enjoyable					1 2 3 4 5
13. Do you have any comments about your group formation?					
.....					
.....					
.....					
14. Why do you think a group should/should not have a group leader?					
.....					
.....					
.....					

# Appendix 7

## Cooperative Learning Perception Interview Questions

1. Do you think your group formation is effective? Why/Why not?
  - How do group members share tasks in your group?
  - Do you feel comfortable to work with your group mates?
2. Pick names of five members with whom you want to work with in the future.
3. What do you think about your group?
  - Do your group work effectively?
  - Are you happy with your group products?
4. How do your group members share tasks and ideas?
  - Does every group member do the same amount of works?
  - Does every group member always complete their tasks?
  - Does every group member help each other to complete the tasks?
5. Do you think there should be a leader for each group?
  - What are advantages/disadvantages of having a group leader?
  - What characteristics of a group leader do you want to see?
6. What do you expect from a group leader?
  - What kind of tasks should a group leader do for the group?
7. Do friendship groups help students cooperate more? Why/Why not?
8. Do mixed-ability groups help students cooperate more? Why/Why not?
9. What do you think about peer assessment?
  - How do you assess your friends?
  - Do you often exchange your ideas with your friends?
  - Do you tell them your honest opinions?

10. What do you feel when you present in front of other students?
  - Do you feel nervous?
  - What do you think can help you feel less nervous?
  - Do you think it is easier and more confident when you present your group's products instead of your own products?
11. How do your group members share ideas?
  - Do you always share decision making?
  - Do you correct each other?
  - Do you praise each other when the group work is not good enough?
12. What are advantages of peer assessment?
  - Do you learn more?
  - Do you understand better?
13. What do you dislike about peer assessment?
14. How could peer assessment be improved, from your point of view?
15. How do you feel when your works are corrected by others?
  - Do you feel hurt?
  - Do you appreciate their corrections?
  - Do you think group members should correct works for each other?

# Appendix 8

## Language Observation Form

Sheet No: .....		
Date: .....		
Task No: .....		
Class: .....		
<u>Language</u>	<u>Pronoun used</u>	<u>Types of questions</u>
	(I?, We?)	
<u>Encouragement + Support</u>	<u>Negative</u>	<u>Positive</u>
	(Compete, reject ....)	(Sympathize, sharing...)

# Appendix 9

## Cooperative Learning Perception Questionnaire

*(Please circle the most appropriate choice according to your point of view)*

Strongly Disagree	Agree	Undecided	Agree	Strongly Agree
1	2	3	4	5
1. I have a chance to be involved in the group discussion				1 2 3 4 5
2. Some members always dominate our discussions				1 2 3 4 5
3. I'm under great time constraint to prepare for exams				1 2 3 4 5
4. I find lessons interesting and enjoyable				1 2 3 4 5
5. I am happy with this lesson plan				1 2 3 4 5

# Appendix 10

## Behaviour Observation Forms

Name of the student:.....

Group:.....

Date of observation: .....

Behaviours	Week ...	Week ...	Week ...	Week ...	Total
Group engaged behaviour					
Individual behaviour					

# Appendix 11

## Cooperative Learning Perception Interview Questions

(For teachers)

1. How do you think about the lesson plan?
  - Are you comfortable about it?
  - Do you think it is more effective than the conventional plan in some way?
2. Do you have any problem with using this new lesson plan? If yes, what are they?
3. How do you think your students cope with lessons that they need to work on in their groups outside the class?
  - Are they happier?
4. How do you like presentations each group made in front of the class?
5. How do you think about extra work and information that students bring to the class?
  - Do you have any concern about these resources? If yes, what are they?
6. Will you go on encouraging your future students to look for similar reading resources? Why? Why not?

# Appendix 12

## Cooperative Learning Perception Interview Questions

(For students)

1. How do you think about the lesson plan?
  - Does this new lesson plan help you come with coming exams better?
  - Do you think you learn better with this arrangement?
2. Do you have any problem with working in your groups without the teacher's supervision? If yes, what are they?
3. Do you want other teachers to use similar lesson plan? Why? Why not?
4. How do presentations in front of the class help you improve knowledge and other soft skills?
5. How do you think about seeking extra work and information that are not contained in the textbooks and your teacher's lectures?
6. How do these resources benefit you?



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