

# Designing and Developing Computer-supported Collaborative Learning (CSCL) Tasks for Junior High EFL Learners in Taiwan

## CHAPTER 1 INTRODUCTION

This chapter provides an overview of this study. It first addresses the researcher's motivation of conducting this study, in which the context and the rationale of this study is presented. Then the purpose and research questions are followed, with a brief discussion on the significance of this study.

### 1.1 Motivation

The purpose of this study is to derive useful insights and design principles for computer-supported collaborative tasks for EFL learning (CSCL-EFL). The study is motivated by a design-based research paradigm, seeking to understand how to design CSCL activities in the context of teaching and learning in the present English curriculum of junior high school in Taiwan. Since the application of technology is widely believed to provide many learning opportunities in the EFL classroom, this study attempts to generate useful principles for the design of computer programs and offer EFL teachers an example in exploring the use of technology.

In the past ten years, the change of the policies on English language teaching in Taiwan has impacted every aspect of the English curriculum in junior high schools. In the year 1997, the textbook used by every classroom was adapted toward a more

communicative orientation (Su, 2003). In the year 2001, the English curriculum was introduced to the fifth graders in Taiwan (The MOE, 2001). In 2002, the market of textbooks was officially open to all the publishers and each junior high school could choose their own textbooks. These changes all intend to make our educational environment more appropriate for learning. First, communicative orientation is in tune with the current trend of language teaching; teachers using the textbook can present materials more effectively in a meaningful way. Second, the early exposure to English in the elementary school should better prepare students when they enter junior high school. Third, teachers having the textbook decision right are able to cater to the students needs (McDonough and Shaw, 1993).

However, problems in practice still exist in many aspects, including no time to do communicative activities, unsatisfied design of the textbook, and the large gap among students' proficiency levels. In my own teaching context, the unified contents of monthly examinations force teachers to follow the same tight schedule. Under this pressure, teachers do not have much time to do communicative activities. Teachers usually would rather present the materials in a traditionally monological way and then ask students to memorize the contents. Many teachers seem to believe that only by this way would they follow the schedule and make sure students score high in the examinations.

Beside the fact that traditional teaching methods still prevail, textbooks also do not fully echo with the communicative approach (Pan, 2004). In the open market, it is too often to see textbooks which claim to be communicative-driven but indeed are full of mechanical drills and practice. In these textbooks, the common structure of one lesson usually includes two dialogues, one reading passage, two sentence patterns, and two sentence drills. The invariable way of presenting language items seldom

attracts or motivates students; needless to say how much interaction teachers could expect in the classroom. Although teachers could rearrange the teaching materials in a communicative way, they do not have time to do so in each section. The teaching schedule is so tight that teachers have to squeeze all the contents into it in a very short time. Communicative ways of teaching under this circumstance could only be achieved to a limited extent.

Finally, teachers have to face the problem of “bimodal distribution”, in which huge discrepancy of English proficiency exists between low achievers and high ones (Chang, 2002; Chen, 2004). Although students are introduced to English in the elementary school, not everyone learns it well. It is not unusual to have a class with one third of the students who are already familiar with the contents, while one third of the students still could not fully understand even after instruction. The first group of students needs activities which are more challenging; and the second group of students needs basic practice and basic drills. However, teachers usually do not have time to meet these needs at the same time. As a result, high achievers become bored, and low achievers simply give up learning. This phenomenon becomes more and more serious in higher graders, but I believe it is the last thing that teachers want if they could find a way out.

To sum up, the problems teachers encounter are as follows: (1) a tight schedule does not allow enough time to do communicative activities; (2) the textbook is partially communicative-orientated but does not provide much meaningful practice; and (3) teachers are not able to meet students' individual needs.

## 1.2 The Opportunities

In the past 5 years, the Ministry of Education in Taiwan put great efforts in

introducing technology into the curricula. For example, the Education Department of Taipei City Government (2002) invested NT \$2.8 billion in the infrastructure of technology-assisted learning environments from the year 1999 to 2001. The objectives were to make sure that every classroom had access to the internet, teachers were empowered in applying technology, students gained the information technology (IT) ability, the curricula was integrated with technology, and the school administrators had resources to provide support. Under this context, English language teachers, as with teachers of other subjects, have opportunities to use computers to assist in their teaching. One benefit of computer-assisted learning, as Levy (1997a) mentioned that in analyzing the computer as a tutor, it had the strengths in “its flexibility to provide language instruction when a teacher is not available. This flexibility can allow students to learn at a ‘time, place, and pace’ that suits them...[and] provide valuable supplementary work, especially extra language practice” (p.205). Also, having the opportunity to design the software, teachers could (1) bring their professional knowledge into full play on the development of computer assisted supplementary materials in order to make up the deficiency of the textbook; and (2) design materials which cater to each individual student’s needs.

However, little research has investigated how teachers could design computer-supported collaborative learning (CSCL) tasks for EFL learners in junior high schools in Taiwan. Studies on computer-assisted instruction in Taiwan were mostly from viewpoints of either the techniques of programming (e.g., Gong, 1995; Hong, 2006; Ting, 2005) or on the effect that a ready-made multimedia material had on learners (e.g., Chen, 2002; Hsu, 2005; Pang, 2005). Few studies were conducted from the viewpoint of an English language teacher-designer. Also, few studies on CSCL in Taiwan have attempted to conduct iterative implementation in order to

address the goal of understanding the interaction between learners, the learning environment, and the software. Having an opportunity to learn an authoring software called “*ToolBook*” in the University of Manchester for the fall semester in 2004, I intended to combine software design and research in education from the viewpoint of both an English teacher and a program designer.

### 1.3 Purpose of the Study

This study aimed to derive some useful insights and principles for the design of CSCL software for EFL learners. Taking a piece of CSCL courseware designed and developed by the researcher based on task-based teaching approach, the study adopted design-based research in order to identify important factors which affected the administration of CSCL software (More discussion was presented on p.25). Within three cycles of implementation and revision, the following were research questions this study focused on:

- (1) After three cycles of implementation of a researcher-designed software, what are some design insights and principles that could be derived for computer-supported collaboration EFL tasks?
- (2) In three cycles of implementation, how did the participants interact with their partners during the pair work? What insights can be used for CSCL task?
- (3) What pedagogical implications could be derived from the three cycles of implementations for CSCL instruction?

### 1.4 Significance of the Study

This topic was important for those who would like to develop software programs for EFL learners within the constraint of Taiwanese junior high school

curricula. Useful insights and principles derived from this research provided guidance in the process of design, development and implementation of CSCL software. Exploring learners' learning process also illustrates the complexity of interaction in pairs. Finally, implications discussed in this study may motivate teachers to design more supporting learning environments in their contexts.