Reviewing Computer-Assisted Language Learning (CALL) in a Vocational School in China

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Declaration

I declare that *Reviewing Computer-Assisted Language Learning in a Vocational School in China* is my own work, that it has not been submitted before for any degree or examination at any other university, and that all the sources I have used or quoted have been indicated and acknowledged as complete references.

Sun Lixia   17 May, 2005

Signed _____

Dedication

This mini-thesis is dedicated to my mother, Xu Yuanhua, who taught me to understand the first Chinese character.

Acknowledgments

I wish to express my heartfelt gratitude to my supervisor, Professor Zubeida Desai, Deputy Dean of the Faculty of Education, for her valuable, consistent support and encouragement. I thank her for her help in assisting me to complete the mini-thesis from the start of the proposal up to the final stage.
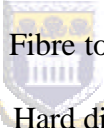
I also wish to express my gratitude to my respondents for their cooperation: the principal, the English teachers, and the students at the school in which I conducted my research.

I am very grateful to my lecturers at the University of the Western Cape, especially Ms. Caroline Kerfoot and Ms. Zannie Bock, who guided me in my studies.
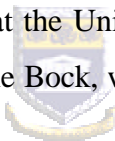
Last, but not least, my gratitude goes to all my Chinese friends in South Africa. They helped me in my days during my studies at the University of the Western Cape.

Acronyms

ADSL	Asymmetrical Digital Subscriber Loop
CAI	Computer-Assisted Instruction
CALI	Computer-Assisted Language Instruction
CALL	Computer-Assisted Language Learning
CCRTVU	China Central Radio and Television University
CERNET	China Education and Research Network
DVD	Digital Video Disc
EFL	English as a foreign language
ESL	English as a second language
FTTB	Fibre to the Building (10Mbps)
HDD	Hard disc drive
IE	Internet Explorer
ISDN	Integrated Services Digital Network
IT	Information Technology
LAN	Local Area Network
MoE	Ministry of Education
MSN	Microsoft Netwo
PC	Personal computer
PLATO	Programmed Logic for Automatic Operations
USB	Universal Serial Bus
VOD	Video frequency order
WBI	Web-based instruction

Abstract

In recent years, advances in computer technology have motivated Chinese teachers to reassess computer use and consider it as a valuable part of daily foreign language learning and teaching. Software programmes, USB technology, and computer networks are providing teachers with new methods of incorporating culture, grammar, and real language use in the classroom. Students gain access to audio, visual, and textual information about the language through the use of computers.

The aim of this study was to investigate vocational school English students' and teachers' concerns and behaviours about integrating information technology into English instruction. This research reviews CALL deployed by tenth- and twelfth-grade students and their teachers and as evidenced in their English textbooks, and probes feasible ways to conduct English teaching through CALL.

The data was collected through an analysis of the textbook, classroom observations, questionnaires distributed to students and interviews with teachers.

The findings seem to indicate that CALL has not been accepted by language teachers as an integral part of curriculum planning. English teachers are accustomed to teach using traditional structural methods. Even through CALL, teachers do not vary their teaching strategies from a teacher-centred approach. The findings of the study indicate that CALL should be combined with positive features of traditional teaching methods to obtain the maximum teaching outcomes.

These findings also lead to the conclusion that CALL cannot really lead to English learning if students have no motivation to learn English. Successful English learning is dependent on the student's desire to participate. But the data reveals that students have little time to learn English on their own using CALL. Findings from this study also show that centralised textbooks and a centralised examination system in the country restrict the development of CALL in China.

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CHAPTER 1 INTRODUCTION

1.1 Introduction

This chapter provides the background to the study. It also discusses the reasons why I chose this topic, the aims of the study, and the research questions. It ends with an outline of the chapters in the thesis.

1.2 Background to the study

1.2.1 English language teaching in China

There is mention of English language teaching in China in the mid-nineteenth century during the Qing Dynasty. The method of English language teaching then was traditional, and emphasised reading and translation. The concentration was on grammar and vocabulary learning, and pronunciation was learned by imitation and repetition.

The People's Republic of China was founded in 1949. English was replaced in school syllabuses by Russian. By 1954, Russian had become the only foreign language taught in Chinese schools.

In 1955, the Ministry of Education in China announced that English teaching should be restarted in secondary schools. Since then, the Chinese started to learn English as a subject. The English textbook series written by the Education Department of China focused on reading and writing. The main aim of English learning was to grasp

grammar and vocabulary. The students learnt "mute English"[1], but they had a good command of grammar.

From 1978, Chinese people had a chance to communicate with foreigners, and therefore the need for both social and academic English became apparent. More foreigners were allowed into China to do business or study; thus the need for English among all levels of Chinese people has arisen, so much so that, nowadays, China has become the largest market for English learning in the world. English study in China is being inspired not only by the desire to study abroad but also by China's entry into the World Trade Organization and Olympic Games, which will be held in Beijing in 2008.

1.2.2 English language teaching methods and CALL

In the following section, I outline the changes in teaching methods in English and discuss the reasons for the interest in computer-assisted language learning (CALL) in foreign language teaching, especially in English teaching. Traditional teaching methods which focus on grammar and text translation are obviously out of date. China is reforming English testing and teaching methods. Traditional emphasis on gaining a huge vocabulary through recitation will be replaced by English writing, listening, reading and speaking. With the development of computers, CALL has become popular in China.

Computer-assisted language learning has been used for language teaching since the 1960s. In China, CALL started to be used from the 1990s. Though CALL was chosen in language teaching rather recently, it is developing rapidly in China. Recent years have shown an explosion of interest in using computers for language teaching and learning in China.

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[1] Mute English, a term commonly used in China and which is translated from Mandarin, refers to the command of English of students who can read and write, but cannot communicate effectively in English.

CALL is useful and plays a very important role in English teaching/learning. Unlike students in an ESL environment, EFL students have little contact with the target language except in the classroom, and EFL students also have very limited contact with native speakers of English as most of their teachers are local people. Varying and sophisticated software programmes with video and audio allow students to watch and listen to native speakers using English in different contexts. Because these software programmes adopted English spoken by native speakers and showed the English or American context, learners could learn Standard English accents and gain insight into some aspects of the culture of the target language.

Computers have many uses in the classroom. CALL contains a great variety of exercises for students to practise grammar, language functions, and vocabulary. There are exercises set for beginners, intermediate and advanced students. CALL can be successfully employed not only for grammar practice and correction but also for communicative activities.

In CALL, computers and the Internet play important key roles. As Moras (2001) outlines: "Computers and the Internet are so widespread today that one feels outdated if not using them." Indeed, computers and the Internet have become so popular in schools and homes that the majority of language teachers have to think about the significance of computers for language learning.

In CALL, computers are used both as a tutor and a tool. As Warschauer (1996:3-20) explains, computers can be tutors which offer language drills or skills practice and a stimulus for discussion and interaction, or a tool for writing and research. CALL programmes can provide comprehensive practice exercises including grammar, listening, pronunciation, reading, writing, vocabulary, and text construction. Learning through CALL, to the students, means there is a tutor with them all the time.

The common use of the computer is as a tool for word processing, grammar checking and collaborative writing. For example, a computer can check spelling and some grammar. Also, there are numerous CD versions of encyclopaedias and dictionaries.

While learning English through CALL, if the students meet an unfamiliar word, they need not open one thick dictionary; they can just click an electronic dictionary, put the mouse on the new word, and the meaning with the sound of the new word will be given. Through CALL, the students can learn better, faster, more easily, more accurately and more enjoyably with a computer.

Using the Internet through CALL is inevitable. There is a massive amount of useful information on the Internet. It is becoming one of the largest libraries in the world, a source of limitless authentic materials. More than 80% of the information on the Internet is in English, and one can communicate with anyone in the world in English through the Internet. The Internet can help the students with their English development.

CALL can show a real English situation to the students through CDs and the Internet. Nowadays it is already possible to use real-time audio and audio-visual chatting on the Internet; the students in China can chat with someone in the United States, face-to-face, with the help of the Internet. CALL is beneficial in language teaching. In CALL, the teachers can give assignments; analyze the results of students' work, and evaluate the class as a whole, as well as individual students. CALL is also useful for obtaining teaching materials, exchanging them with other teachers and using databases to obtain teaching materials.

CALL can make classes more effective. The teachers teach, using English textbooks, by presenting pictures, videos, and written text with sound instead of reading and translating the textbook series to the students. In this way, the students can use more of their senses to understand what they learn. CALL can increase the communication of teaching in a classroom, and enhance the benefits of teaching in the classroom. It can provide students with a space of self-control and teaching on their own. CALL can provide a learning database via the Internet, and learners do not have to worry about the languages that they do not understand. The students can chat with foreigners on the Internet, make friends and send e-mails to foreigners, and learn

foreign languages in this way. The students can use teaching software from other countries, obtained from the Internet.

China has launched several hundred Internet schools, mostly for adult education, some of them offering English teaching. The websites create a favourable learning environment for learners to master and integrate knowledge, providing a virtual learning situation which meets the students' needs and gives them guidance. Students can get feedback through these websites and can also register subjects, study and take tests on line. These training websites in China are based on internet or intranet technology.

In the next section, I explain the reasons that led me to do research in a vocational school in the area of CALL.

1.3 Rationale for the Study

This study provides a brief overview of how computer-assisted language learning (CALL) has been used in a vocational school in China. It focuses not on the pedagogical questions that teachers have considered in using computers in the classroom, but rather on how CALL can effectively be integrated into English teaching and learning at secondary vocational level in China.

Chinese learners of English have few opportunities to communicate with English speakers, so they learn English only inside the classroom, but through CALL, teachers can show situational English to the students, and the students can learn at any time by using multimedia teaching software.

Computers are becoming more common in China, which has the biggest manufacturing centre of computers. As the price of computers decreases, more people have their own computers at home. Even some students have their own computers at

home and write assignments for classes. Many teachers use the computers to write examinations or to prepare teaching materials for classes. Since 2000, the Ministry of Education (MoE) of China announced that computer education is now required in schools, and as a result, all elementary, junior and senior high schools have computers these days.

There is more and better teaching software on the market. There is also shareware and freeware available through networks, organizations, and books. The users pay only a small fee or nothing to use this software, so it is possible to use CALL in English teaching. English teachers in China also learn how to use computers to design their lectures with Flash, Microsoft Power Point, Microsoft Excel, and so on, and to assist students in English learning.

All elementary, junior and senior high schools in the province where I conducted my research are required to have computer classes for all students now. All these schools have computers, and it is necessary to choose the best ways to use them.

1.4 Aims of the Study

Lack of opportunity to talk to English speakers is one of the reasons why the Chinese take more time to learn English. CALL is a good way of teaching developments in foreign language teaching. The aims of the research are to compare CALL and a traditional approach to teaching English, to evaluate existing technology-based materials in a vocational school and to investigate what problems teachers and students face in implementing CALL.

As a teacher at a vocational school for the last 12 years, I have noticed that although a new teaching method (CALL) and new teaching materials (technology-based materials) have been introduced, the students' English abilities have not greatly improved. The reason may be either with the teachers, because a new methodology makes many experienced teachers feel insecure, since they have studied, trained and gained their experience using a different approach, or it could be with existing

technology-based materials. Another possible reason might be that the students have no desire to learn English because they have no opportunity to use English in China after graduating.

Thus, the major aims of the study are to review computer-assisted language learning in Grade 10 and Grade 12 at a vocational school and identify the problems associated with it and its causes and to recommend possible strategies for the improvement of English learning in a largely monolingual country.

China is the third biggest country in the world. Economic development and teaching situations are very different in different parts of China; the east and south of China have developed more quickly than the west and north of China (Xinhua News Agency 2005). For example, computers installed at schools are popular in the east and south of China. The school I did my research in is in the east of China, and CAI and CALL are commonly used in this area from primary school to senior high school.

1.5 Research Problem

The research focuses on the following five questions.

The main research question is, how is computer-assisted language learning (CALL) integrated into traditional language learning environments at a vocational school? In other words, the research question aims at reviewing how the students learn English with the aid of CALL at this school.

The subsidiary questions are:

1   How can CALL be used in the English class?
2   Can CALL help to improve students' skills in English?
3   What problems do teachers face in implementing CALL?
4   What problems do students encounter in using CALL?

1.6 Chapter Layout

The present thesis is organized as follows. The thesis consists of six chapters. Chapter One contains the background to English in education in China, the statement of the problem, the objectives, and the rationale that supports this study. It also provides a layout of the chapters. Chapter Two introduces the Chinese education system and describes the hardware and software in the vocational school where I conducted my research. Chapter Three presents the theoretical framework and explores the concept of CALL. Chapter Four discusses the research design and methodology. Chapter Five first presents the data, then analyzes and discusses it. Chapter Six draws conclusions from the research, discusses some limitations of the study, and makes recommendations for further research.

This chapter has discussed the aims, reason and motivation for the study. It has shown that because English is a foreign language in China, English learning needs a virtual environment for interaction. The benefits of CALL in language learning were also discussed. The chapter has also introduced the structure of the mini-thesis. In the next chapter, the Chinese education system, which is very different from the Western system, will be discussed and the hardware and software in the vocational school where I conducted the research will also be described.

CHAPTER 2 BACKGROUND AND CONTEXT

2.1 Introduction

According to The People's Republic of China website (www.munga-una.org.uk/China.htm), China is the third largest country in the world, with a total land area of approximately 9.6 million square kilometres that accounts for 6.5 % of the global land area**. T**he population of China is 1.3 billion. As a multinational country, China is comprised of 56 ethnic groups. The Han nationality accounts for 92 % of the total population. The Han people have their own spoken and written language called Mandarin. Most of the other 55 national minorities have their own languages and they are expected to master their own languages, while also learning the Mandarin language. According to Xiufang Wang (2003:1), the total enrolment of the Chinese student population in regular and adult schools at all levels exceeds 320 million, which ranks it as the largest education market in the world.

2.1.1 Chinese Educational Reforms

China has more than 5000 years of history. Chinese education has been influenced deeply by Confucius (551B.C. - 479B.C.), who emphasized the importance of knowledge in society**.** Since 1949, when the People's Republic of China (PRC) was established, various educational reforms have been experienced.

The first plan of reform was in the year 1947, when the Chinese government learnt from the former Soviet Union's education system. According to the former Soviet Union's educational theories, the focal point of education was to instruct and train

scholars to achieve high marks (Wang, 2003:9).

In 1958, during Mao Zedong's time, the second reform began. The Chinese government started to establish an educational system with Chinese characteristics. Xiufang Wang (2003: 10) describes the educational reforms, which included strengthening political and ideological education in all the educational institutions, adding productive-labour classes as formal courses in all the educational institutions, engaging educational institutions in running factories and farms, and having factories and farms run schools and colleges.

Through these reforms, the number of higher educational institutions and secondary vocational schools increased dramatically. The implementation of the third plan commenced in 1978 (Lin, 1993:1), when Deng Xiaoping was in the leadership position in China, and the Chinese government formulated the policy of 'developing the country through science and education'.

In April 1986, the National People's Congress adopted the Compulsory Education Act which imposed a total of nine years of compulsory schooling (Potts, 2003:3), covering primary and lower secondary levels. Since then, in the whole country, nine years of free education have been enforced. Meanwhile, local governments were encouraged to develop vocational education. At present, China has made significant progress in education, i.e. basic education, higher education, vocational education, adult education, teacher education and special education. The Chinese education system is set up by government as the major investor, with social partners including industrial organizations, businesses and public institutions as co-investors. In occupational and adult education, social partners are playing a more and more important role. Industrial organizations and some business groups own their own kindergartens, primary schools and even high schools or colleges.

2.1.2 China's Education System

The Chinese education system is different from the Western education system. An examination system has been chosen by the Chinese Department of Education, which means the students must pass the entrance examination before being accepted by a school. Generally, education in China can be divided into the following stages:

The first stage is pre-school education for the 3- to 5-year-old children in kindergartens, where children learn simple mathematics, in Chinese and English. The second stage is primary education for 6- to 11-year-old children. Primary schools are usually run by local educational authorities, and in some places, by enterprises and individuals. The third stage is secondary school, provided to 12- to 17-year-old children. Secondary school is classified as secondary schools or vocational high schools and all sorts of secondary professional schools. Public secondary schools include junior middle schools and senior middle schools, both offering three years of study. Students graduating from junior schools usually go to common senior middle schools, and some of them go to vocational high schools or secondary professional schools for three to five years of study. The fourth stage is higher education for vocational college students, undergraduates, postgraduates and doctoral students. Higher education includes universities, colleges, institutes and vocational colleges.

Common higher education in China comprises junior college, bachelor's, master's and doctoral degree programmes. Junior college programmes usually last two to three years; the bachelor's programme is four years (five years in medical and some engineering and technical programmes); the master's programmes, is two to three years; and doctoral programmes, three years. In 1981, China announced a degree system composed of bachelor, master and doctoral degrees.

According to the China Education and Research Network (2004), China's education

system is composed of four components: Basic education that covers preschool; formal primary and secondary education; technical and vocational education, which includes specialized secondary schools and skilled-worker schools; secondary vocational schools; and the advanced technical and vocational colleges. Higher education, which is targeted at adults, includes various types of school instruction and other forms of education, such as the China Central Radio and Television University (CCRTVU).

2.1.3 New Education Developments in High Technology

The former Chinese leader Deng Xiaoping said in 1984 that IT popularization must be spread among the children. Since then, intensive application of IT in education is being actively promoted and distance education is energetically developed in China.

According to the Ministry of Education of China website (www.edu.cn), since 1999, the MoE has carried out modern distance education in regular higher education institutions and CCRTVU. A modern distance education system consisting of 68 regular higher education institutions, with their 2000 learning centres and the CCRTVU system, which covers the whole country, has been established. Moreover, the China Education and Research Network (CERNET), initiated in 1994, has developed into an operative education network. CERNET consists of the national-level backbone network, local area networks and campus Intranet. The integration of CERNET with satellite and broadband has constructed the transmission platform with space and land together. CERNET provides a support network environment for modern distance education in China.

The MoE of China announced the No. 34[2] Notice about Implementing School Networks among Primary and Secondary Schools in 2000, which claimed that in 5-10

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[2] No. 34 : Notices announced by the MoE of China are in numerical sequence.

years, 90% of Chinese schools in the whole country, including primary and secondary schools, would be linked to the Internet and would set up school networks.

With IT developing, computers have become widespread in schools and homes in China. Computer use has expanded so dramatically that the majority of language teachers have to think about how to use computers for language learning. Though CALL has developed gradually over the last 30 years in Western countries, recently, computer-assisted language learning (CALL) was adopted in foreign language teaching in almost every kind of school in China.

In the next section, I describe the hardware and software at a vocational school where I conducted my research.

2.2 CONTEXT

The Chinese vocational school where I conducted my research is representative of a typical school in the Shandong Province where I am based. The other reason why I chose this school is that I have been working at this school for more than ten years since I graduated from the Shandong Teachers' University. CALL has been used in my teaching but not often. I left this school in February, 2002. Nowadays, CALL is popular at this school. The purpose of this section is to give the reader a sense of the technological advances in Chinese schools.

The Chinese vocational school (Figure 1) where I conducted my research lies to the end of Shandong Peninsula, which faces South Korea and Japan across the Pacific Ocean, and it was built in 1982. There are about 2,000 students and 108 professional teachers. Twelve major courses are offered; for example, Computer Appliance and Maintenance, Marine Culture, Music, and Japanese.

Figure 1 Teaching Building
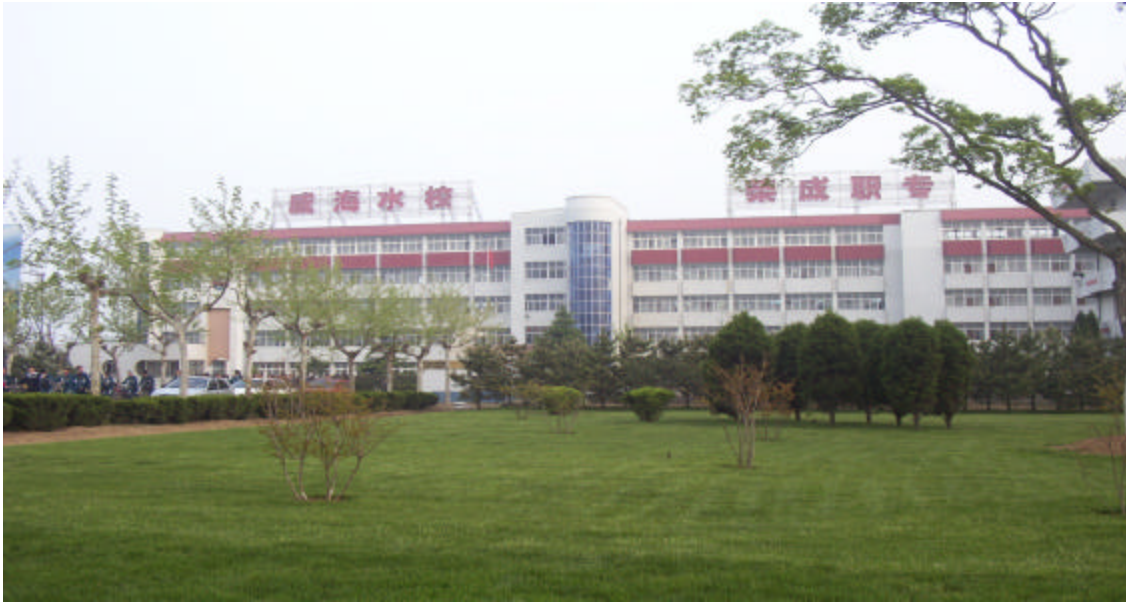
Ninety-five percent of the students live in dormitories at school. There is uniform bedding, a telephone system and water heating in every dormitory. Students can use the Internet in the dormitory. The students have five days off in one month and can go home. Students and teachers have uniforms.

2.2.1 Campus Intranet

The school paid more than 1.5 million Yuan (1Rand =1. 34 Yuan) to build a satellite-receiving system, a closed-circuit television, and a two-way control system, the connection between the school network and the local educational LAN.

In 1999, this vocational school accessed the Internet by telephone, then upgraded ISDN from the telephone line. In November 2000, the school network was built rapidly, video cameras and TVs were installed in every classroom, and the school linked to the Internet, from ADSL to FTTB (Figure 2); an electric cable was set up to every building in the school. At the beginning of 2002, the school finished the

installation of Internet lines and installed the management platform of the school network (Figure 3). From 2002 to the beginning of 2003, the school built visual platforms in 36 classrooms (Figure 4), and bought laptops for every teacher at this school. At this school, one can go to the Internet in every classroom, every office and every office desk (Figure 5).

Figure 2
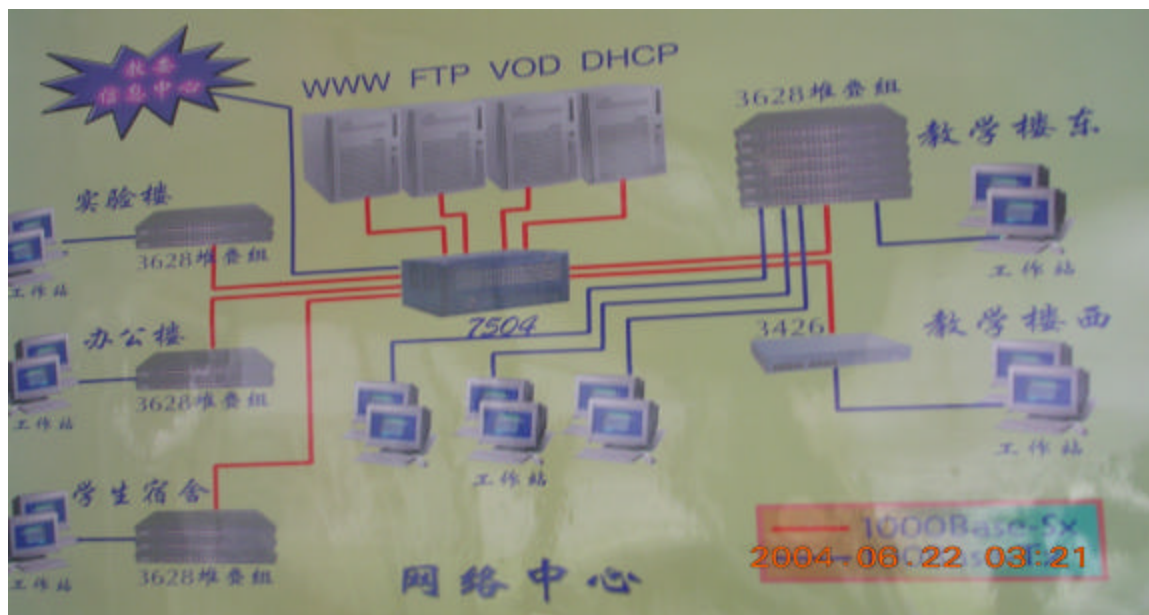
Figure 3

Figure 4   **Figure 5**

2.2.2 Description of CAI and CALL

There are four IT labs with 350 computers for about 2,000 students every year at this school, and about 120 laptops for the teachers and officers, one E-reading room, and two multi-language labs (Figure 6) with a computer and tape recorders in each desk. At this school, 36 whole classrooms were set up with multimedia projectors and audio/video functions (Figure 7)**.**

Figure 6   **Figure 7**

There is one electronic monitoring office which can play DVD/VCD/CDs to the classrooms and observe 36 classrooms, and one multimedia room where teachers can practise and discuss how to improve their computer-assisted instruction skills.

There are 13 full-time IT teachers, who are teaching IT and doing some research on CAI. Depending on the different subjects they were teaching, the school chose some teachers to attend various IT training courses. During the past two years, teachers at this school took part in various competitions on high quality courseware and teaching with courseware. Fourteen teachers won a prize in the province; thirty-five teachers were awarded a prize in the city. Nineteen papers written by the teachers at this school about CAI won prizes in the province, and six papers won prizes in the city. In 2003, five teachers received certificates as advanced systems operators. Seven teachers received certificates as middle-rank systems operators.

| Figure 8 | Figure 9 |

In order to equip the teachers, the school successively organized eight one-term IT training programmes for the teachers, these being Windows, Microsoft Word, PowerPoint, Excel, IE, how to operate the multimedia teaching equipment, Flash, and CAI courseware design. All teachers younger than 50 years must learn how to use the computer and pass the computer-level test set by the Education Committee of Weihai

city. Teachers over 50 have the right to learn how to use the computer but do not have to sit for the IT test. At present, almost every teacher at this school can design courseware and knows how to use it to teach; all teachers at this school can go to the Internet and download something to assist their teaching aims. (Figures 8, 9)

Teachers at this school adopt CAI in the following ways:

- courseware designing which can show animated texts to students;
- teachers who are teaching the same subject work together to design teaching plans and courseware and share information with each other, because the same grade and the same subject share the same textbooks;
- teachers use computer-adaptive testing;
- teachers also provide websites to the students to learn on their own.

In recent years, the school accelerated the development of education information technology by focusing on the Internet, the school network, and the establishment of computers in offices and classrooms, to handle official business work, teach through computers, share instruction information via Internet and apply simulation teaching in a virtual classroom.

At this school, the headmaster paid more attention to the IT management and acted as the group leader of the IT team, which includes the IT office and IT equipment controllers. There are professional IT teachers in every subject group and IT equipment controllers (students) in every class.

Every teacher has his/her own job in the IT office that consists of eight persons, seven of them professional teachers, who are in charge of the arrangement of term schedules, courseware design, school web design, subject topic study, school network running, IT training, equipment maintenance and service, editing and playing programmes, software management, teaching outside classrooms, and so forth.
Students at this school have computer learning outside class. Every day they have

about three classes in the evening for individual study, in which they can learn anything they want, and so some students choose to study computers, i.e. typing practice, flash design or computer programme learning. In addition, the students' union at this school undertook to start a campus TV station, a school broadcast and a school newspaper via a local education website.

One electronic monitoring office with TVs on the wall can control 36 classrooms, observe 36 classrooms by video cameras from the back of every classroom, and play DVD/VCD/CDs or courseware to the classrooms, and teachers in the classroom can control it by remote control.

This vocational school in China has its own website; now it offers www service, which is the main platform for school information and announcements, showing school information, international and civil news, and school news, and also providing software download and electronic bulletins.

The school also put up a video frequency order (VOD) programme service. Presently, the main service of VOD is to process multimedia information sources – video disks, VCD, DVD, CDs and tapes which are useful for teachers -- change them into net sources and keep them on the server. Thus, when the teachers work in their offices, if they need a particular source, they can play or scan it at any moment. At this school, three foreign languages are taught: English, Japanese and Korean. Every student at this school must learn English. CALL was adopted at this school via language-labs, courseware design and teaching in classroom. The students used CALL in vocabulary, grammar, writing and reading, in listening to English programmes by teachers and in reading e-books in English.

In this chapter I described the Chinese education system and highlighted the technological advances at the Vocational school where I conducted my research. The next chapter explores the literature on CALL and provides a theoretical framework for this study.

CHAPTER 3 LITERATURE REVIEW

3.1 Introduction

It is difficult to access text literature on CALL in the Western Cape, where I was studying, so I was largely dependent on the Internet for my sources of information.

According to The Association for Educational Communications and Technology Report (1997:1-16), educational technology is a complex, integrated process involving people, procedures, ideas, devices, and organization. It is used for analyzing problems and devising, implementing, evaluating, and managing solutions to those problems involved in all aspects of human learning. Oliver and Bradley (1999) describe learning technology as an area with many names but few definitions, which can encompass educational multimedia, web-based learning, computer-assisted learning and a whole host of other related topics. The focus in this chapter is more on CALL.

According to Pennington (2004:7-33), in the last decade, computers have dramatically changed the professional life of the ordinary working linguist, altering the things we can do, the ways we can do them, and even the ways we can think about them. Lawler and Dry (1998:1) write that in the second half of the century, the common experience of using computers is shaping the way we conceptualize both linguistics and language.

3.2 Computer-Assisted Language Learning (CALL) Defined

Computer-assisted language learning (CALL) refers to the use of computers for language teaching and learning. The root of CALL can be traced back to CAI. There

has been much debate over the use of computer-assisted language learning (CALL) in the 'English as a foreign language' (EFL) classroom over the past decade.

Levy (1997:1) defines CALL as "the search for and study of applications of the computer in language teaching and learning". Levy's definition is in line with the view held by the majority of modern CALL practitioners. Davies (2000) says that CALL is an approach to language teaching and learning in which the computer is used as an aid to the presentation, reinforcement and assessment of material to be learned, usually including a substantial interactive element. CALL is used in a very broad sense, "as the general term to cover all roles of the computer in language learning" (Levy, 1997: 81), including word processing, e-mail, and use of the Internet.

In CALL, Ellison (2004) argues that text forms look like books, workbooks, or kits of instructional sheets. This form includes books with an audiovisual medium. Information can be recorded on videodisc or videotape, or in combination with other equipment and a variety of media. Teaching machines can be a page holder or a delivery vehicle, anything from simple page turning to complex interactions.

For as Felix says, it "takes a very special person to learn and, especially, speak a language without face-to-face communication" (Felix, 2001:8). Studies have shown that combining CALL or the Internet with the standard classroom approach actually improves student performance (Christmann and Badgett, 1999:325).

3.2.1 A brief history of CALL

CALL can be traced back to the 1960s. According to Marty (1981:78), in 1960, the Programmed Logic for Automatic Operations (PLATO) project, initiated at the University of Illinois, was an important landmark in the early development of CALL. In the late 1970s, the arrival of the personal computer (PC) resulted in a boom in the

development of CALL programmes. Early CALL favoured an approach that drew heavily on practices associated with programmed instruction. The term *computer-assisted language instruction* (CALI) was in common use until the early 1980s, when CALL became the dominant term. Throughout the 1980s, CALL widened its scope, embracing the communicative approach and a range of new technologies, especially multimedia and communications technology. CALL has now established itself as an important area of research.

Good CALL programmes are presented with a combination of text, still images, sound, and motion video, which the learner must respond to. The learner responds by typing on the keyboard, pointing and clicking with the mouse, or speaking into a microphone. The CALL programmes offer feedback, indicating whether the learner's response is right or wrong and attempting to analyse the learner's response and to pinpoint errors. Other CALL activities in the early days of computer use in schools included working with generic packages such as word processors. Current CALL software has embraced CD-ROM and DVD technology, and there is growing interest in web-based CALL.
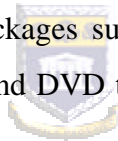
3.2.2 The Development of CALL

The development of CALL, as Warschauer (1996) argues, can be roughly divided into three distinct phases: behaviouristic CALL, communicative CALL, and integrative CALL. Each phase corresponds to a certain level of technology as well as a certain pedagogical approach. These phases range from behaviouristic CALL in the 1960s and 1970s, communicative CALL in the late 1970s and 1980s, and integrative CALL in the 1990s.

CALL development has been variously driven by pedagogy, curriculum and technology (Levy 1997:1). As pedagogy changed, teachers developed new goals and interfaces for students' interaction with computers. *Behaviourism*, *drill and practice*, *instructive*, *communicative* and *integrative* have all been catchwords in the field of

CALL, with educators at times selecting a style of CALL depending on whether the focus is on product or process (Ohashi 1998).

Behaviourist CALL was implemented in the 1960s and 1970s when the audio-lingual method was mostly used. This mode of CALL featured repetitive language drills and provided students with drills and practice. In this paradigm, especially popular in the United States, the computer was viewed as a mechanical tutor, presenting drills and non-judgmental feedback, and allowed students to work at an individual pace.

The next stage, communicative CALL, emerged in the late 1970s and early 1980s. Based on the communicative approach, the communicative CALL programmes provide skills practice in a non-drill format, through language games, reading, and text reconstruction. This approach still uses the *computer as a tutor*, although it gives students choices, control and interaction. Another CALL model used for communicative activities involves the *computer as stimulus,* as in programmes that stimulate writing or discussions, and which may not be specifically designed for language learners. Finally, communicative CALL also uses the *computer as a tool,* in programmes that do not provide language material, but enable the learner to understand and use the language, such as word processors, desk–top publishing, spelling- and grammar-check programmes, as used, for instance, in process writing. For many proponents of communicative CALL, the focus was not so much on what students did with the machine, but rather what they did with each other while working on the computer.

The current approach is *integrative CALL,* which is based on multimedia computers and the Internet. These technological developments have brought text, graphics, sound, animation and video to be accessed on a single inexpensive computer. These resources are all linked and called 'hypermedia', enabling learners to navigate through CD-ROMS and the Internet at their own pace and path, using a variety of media. Many teachers were moving away from a cognitive view of communicative teaching to a more social or socio-cognitive view, which placed greater emphasis on language use in authentic social contexts. Task-based, project-based, and

content-based approaches all sought to integrate learners in authentic environments, and also to integrate the various skills of language learning and use. Integrative CALL (Warschauer, 1996) seeks both to integrate various skills (e.g., listening, speaking, reading, and writing) and also to integrate technology more fully into the language learning process. In integrative approaches, students learn to use a variety of technological tools as an ongoing process of language learning and use, rather than visiting the computer lab on a once-a-week basis for isolated exercises.

According to Davies (2002), if the mainframe was the technology of behaviourist CALL and the PC the technology of communicative CALL, the multimedia networked computer is the technology of integrative CALL. The multimedia networked computer, with a range of informational, communicative, and publishing tools now potentially at the fingertips of every student, provides not only the possibilities for much more integrated uses of technology but also the imperative for such use, as learning to read, write, and communicate via computer has become an essential feature of modern life in the developed world.
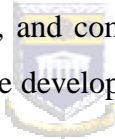
3.2.3 Models of CALL

In this section, I would like to discuss different models of CALL, which include traditional CALL, explorative CALL, multimedia CALL, web-based CALL and intelligent CALL.

Traditional CALL programmes were in the form of text presented on screen, and the learner could respond by entering an answer at the keyboard. A common feature of traditional CALL is to make use of colour to highlight grammatical features and feedback. Also, the more sophisticated CALL programmes would attempt to analyse the learner's response, pinpoint errors, and branch to remedial activities. An alternative approach is the "intelligent CALL" techniques to analyse the learner's response (Last, 1989:153).

More recent approaches to CALL have favoured a learner-centred, exploratory approach rather than a teacher-centred, drill-based approach to CALL. The exploratory approach is characterised by the use of concordance programmes in the languages classroom, which is an approach described as "data-driven learning" (DLL) by Johns and King (1991). The exploratory approach is widely used today, including the use of web concordances and other web-based CALL activities.

Most CALL programmes today fall into the category of multimedia CALL. The video recordings offered by the CD-ROMs, the Digital Video Disc (DVD) and even Universal Serial Bus (USB) technologies, Multimedia CALL combines sound and photographic features. A feature of many multimedia CALL programmes is the role-play activity, in which the learner can record his/her own voice and play it back as part of a continuous dialogue with a native speaker. Other multimedia programmes make use of Automatic Speech Recognition software to diagnose learners' errors.

In 1992, the World Wide Web was launched, reaching the general public in 1993. The Web offers enormous potential in language learning and teaching, but it has some way to go before it catches up with the interactivity and speed of access offered by CD-ROMs or DVDs, especially when accessing sound and video files. For this reason, Felix (2001:190) recommends adopting hybrid approaches to CALL, integrating CD-ROMs and the Web and running audio conferencing and video conferencing in conjunction with web activities.

According to Jones and Jo (1999), WBI can offer students flexibility and a 'different place, different time', while still providing practical assistance and educator contact when needed.

Web-based CALL has opened avenues of access to individuals with disabilities that were not possible before. Web-based CALL is unique in that students and instructors can communicate with each other anywhere in the world within seconds via the Internet. Feedback from the instructor can be obtained immediately. Of course,

effective learning means that instructors and students using web-based learning must be sure to give frequent feedback.

Intelligent CALL is programmed so that the CALL adapts to the student's individual needs. It acquires information about the student's current knowledge of a subject and his/her goals in learning the subject, and then creates a user profile based on this knowledge. It can then adjust itself to the individual student (Ellison, 2004).

3.3 CALL in the Curriculum

3.3.1 Computer Software in CALL

CALL consists of software applications, which endeavour to teach students, through pre-structured and programmed materials, different concepts and subject matter. This courseware either replaces or supplements material which students are expected to acquire through other media (print, television, audio cassette, and so forth). By and large, CALL software falls into two categories: tutorials and simulation. CALL courseware mostly means programmes especially designed for English language learning.

Lee (2000) argues that one way for teachers to integrate information technology (IT) into their classrooms is through the use of computer-assisted language learning software programmes. The first development of computer-assisted language learning software programmes can be traced back to the early 1960s, namely, the programme Logic for Automated Teaching Operations (PLATO) project, which was mainly used for grammar, vocabulary drills and translations and was among the first computerised foreign language teaching systems. Since then, the impact of information technology (IT) on language teaching/learning has increased rapidly to include the present-day wide range of software programmes, language learning websites and authorware.

Warschauer and Healey (1998: 3) provide some guidelines on how to select software. They say that it must:

- provide realistic, native-speaker models of the language in a variety of media;
- offer a language learning curriculum;
- do a needs assessment; …
- record what the student has done, along with an evaluation;
- be available at any hour and require no additional pay or benefits.

3.3.2 Courseware in CALL

According to Bunderson (1998), the term *courseware* refers to the materials for instruction, constituting the products that operate on and with a technologically mediated instructional delivery system. The software containing structured lessons is known as courseware. Egbert (1999:36) argues that the software allows users to see each other via video, use audio to communicate, and at the same time, use drawing, typing and other software tools. Lee (2000:4) states that to accomplish successful integration of courseware programmes, the language teachers should have:

- a certain level of competency in the use of computers;
- an understanding of the dynamics of a CALL classroom; and
- a commitment to the continuous use of CALL in the language classroom.

In order to design courseware, teachers should have competence in the use of computers, which refers to a basic knowledge of how to operate a computer and of what the computer can do, familiarity with some computer terminology, and some knowledge of dealing with commonly encountered problems, especially how to use the software, for example, Microsoft Word, Microsoft Power Point, Excel and Flash. According to Curtin and Shinall (1987:266), if teachers want to have the confidence in taking a class into the multimedia language laboratory, they need to "feel in control of the tools [they] use as well as the subject matter".

Language teachers who use CALL in the classroom must know how to use the computer as a tool in their everyday working lives for word processing, e-mail,

scanning, and downloading from the Internet. Courseware designers must collect many resources first, and then make good courseware via the programmes.

Courseware programmes are usually designed based on theories of language learning and teaching (Hubbard, 1987). Good courseware asks students to interact in some way and not just to memorize information. It must be flexible and allow for differences in learning abilities. It should encourage deep learning and not merely surface learning. Students must understand concepts and how they fit into the whole, be able to integrate parts, apply the information practically, and receive feedback (Dewald, 1999: 26). It is essential for good courseware to provide opportunities for interactivity to make it meaningful for the student.

Good courseware should contain the subject matter appropriate for or needed by the students, and relevant to some real-world need or prerequisite to further study, which includes the sequence of frames consistent with the structure of the subject-matter content and appropriate for the type of users in the intended audience, and the level appropriate for the ability of the users. In good courseware, feedback follows at some appropriate point not too delayed from the response, and the response opportunities are frequent enough for the type of users (Ellison, 2004[3]).

In good courseware, the directions on how to use the programme are clear, adequate, and appropriate for the students; the technical terms and symbols adequately defined; the programme periodically reviews what has been taught most recently throughout the programme; the programme allows for individual differences in learning other than pacing, such as prior knowledge or background, ability level, and learning styles; and the feedback is accurate and clear to the students. And, courseware usually combines high-resolution colour graphics, animations, videos, text, music, digital voice and a voice-recognition function.

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[3] Ellison, 2000: website reference for which the page number is not available.

3.3.3 Computer-Assisted Language Testing (CALT)

According to Chapelle (2001:95), in 1998 and 1999, three of the largest providers of educational tests introduced computer-based versions of proficiency tests for English as a foreign language. At the same time, many institutions and individuals began to offer web-based tests for particular language programmes and classes. Computer-assisted language testing developed from this basis.

Testing reform throughout the 1980s, with the development in hardware configuration, strengthened convictions that computers can and should be used for language testing: "testing is a field in the process of being recreated" (Cole, 1993:72).

Berberich (1995:11) suggests that CALT has a need for

> layered systems that can deal with flexible input and output, freely branch within and access a large base of tasks and data, depending on user inputs, and can collect and process multiple user inputs for ongoing refinement of the system.

3.4 Survey of approaches and methods in Foreign Language Teaching

CALL draws on both technology and theories of learning. Below, I focus on theories of learning.

3.4.1 Communicative Approach

The communicative approach, according to Richards and Rodgers (2001:155), makes communicative competence the goal of language teaching and develops

procedures for the teaching of the four language skills that acknowledge the interdependence of language and communication.

CALL is more associated with the communicative approach to language teaching, with a greater emphasis on the need for learning in context and the use of authentic texts (Kaufmann, 1992: 14). Computer communication, both synchronous, such as visual chatting, and asynchronous, such as e-mail, is a crucial element of the professional and private lives of millions of people across the world.

Communication is at the heart of language teaching and learning. Contact with speakers of the target language has always been encouraged but has not always been easy to achieve, particularly in recent years, when letter writing has not been a favourite activity among young people. This gap is filled by electronic communication.

3.4.2 Learner-centred Method

Warschauer (1998) says that when multimedia are used, the role of the teacher as authority source and expert changes. Hence, the teacher does not dominate the whole course in English teaching/learning. In the traditional classroom, students are more willing to pay attention to the lecture of a teacher. In contrast, through CALL, the role of the students has been changing from a receptive one to a more active one. Thus, the learner plays a central role in this model.

CALL allows students greater control over their learning and provides more opportunities for individualized learning of English. CALL has also been associated with the advocacy of a learner-centred learning environment. Nunan (1998:3) describes the learner-centred curriculum as follows:

> It is impossible to teach learners everything they need to know in class. What little class time there is must therefore be used as effectively as possible to teach those aspects of the language which the learners themselves deem to be

most urgently required, thus increasing surrender value and consequent student motivation.

The use of CALL can help learners become more aware of errors and their nature so that they can monitor them in language learning. In addition, learners can use various kinds of software for English learning via CD-ROMs without the help of instructors. Some learning software provides feedback, analysis, even rewards for the correct answer.

3.4.3 Interaction

Interaction emphasizes the nature of the interplay between teachers, learners and tasks, and provides a view of learning as arising from interactions with others. Since learning never takes place in isolation, it also recognizes the importance of the learning environment or context within which the learning takes place. Williams and Burden (1997:3) have identified four key sets of factors that influence the learning process: teachers, learners, tasks, and contexts. However, none of these factors exists in isolation.

Learning a foreign language comes about as a consequence of the external interaction which takes place between the teacher and the learners. Teachers choose tasks which reflect their beliefs about teaching and learning. Learners interpret tasks in ways that are meaningful. The task is, therefore, to create the interface between the teacher and the learners. Teachers and learners also interact with each other.

Warschauer (1998:68) declared that one of the main benefits of using CALL is the interaction at the computer: between student and student, student and teacher, and student and the computer. In CALL, multiple-level interactions emerged among students, teachers and computers; the interaction includes student and teacher, and student and the computer.

3.4.4 The Audio-lingual Method

Kifuthu (2000) says that the audio-lingual method of teaching English as a second language had its origins during World War II when it became known as the Army method, because it was developed through the US Army. In this method, oral interaction was emphasized in pattern drills and conversation practices. It was developed as a reaction to the grammar-translation method of teaching foreign languages.

Audio-lingualism is based on behaviourism. Error correction is considered important to prevent bad habits. In the audio-lingual method, as Brown (2001) points out, the new material is presented in dialogue form. The method fosters dependence on mimicry, memorization of set phrases, and over learning. Structures are sequenced by means of contrastive analysis taught one at a time. Structural patterns are taught using repetitive drills. Listening, speaking, reading and writing are developed in that order. Vocabulary is strictly limited and learned in context. There is little or no grammatical explanation. Grammar is taught by inductive analogy rather than deductive explanation. Vocabulary is strictly limited to pronunciation. There is much use of tapes, language labs, and visual aids. Great importance is attached to pronunciation. Success responses are immediately reinforced. There is great effort to get the students to produce error-free utterances. Use of the mother tongue by the teacher is permitted, but discouraged among and by the students. Successful responses are reinforced, and great care is taken to prevent learner errors. There is a tendency to focus on manipulation of the target language and to disregard content and meaning.

3.4.5 CALL in English learning

According to Warschauer (1998:57-71), computers are very good at storing, manipulating, and retrieving large amounts of information, making them particularly

useful in the area of English learning. Kaufmann (1992) emphasises the use of computers as a resource for the development of literacy skills. Computers tend to be more suited to the development of reading and writing skills than to the development of speaking skills. CALL is also beneficial to the development of oral skills.

Pronunciation work in particular has benefited from multimedia. Pronunciation programmes in CALL generally incorporate some sort of voice recording and playback to let students compare their recording with a model.

Vocabulary programmes in CALL, such as crossword and word-search puzzles, are activities that take a great deal of time to prepare by hand, but very little time to do on the computer. The teacher types in a series of words, and the machine formats them appropriately. With a crossword puzzle, the teacher is then prompted for each clue, and the machine formats the whole crossword.

The writing process is another area where computers have added a great deal of value. Computers help students in the pre-writing stage to generate and outline ideas. Most word processors come with spelling checkers, giving students some help in finding their errors and recognizing the correct spelling.

CALL programmes designed for teaching grammar include drill and practice on a single topic, drills on a variety of topics, games, and programmes for test preparation. Grammar units are also included in a number of comprehensive multimedia packages and can point to problems.

Text reconstruction programmes allow students to manipulate letters, words, sentences, or paragraphs in order to put texts together. They are usually used to support reading, writing, or discussion activities.

3.5 The advantages and disadvantages of CALL

3.5.1 The Advantages

One of the advantages of CALL, according to Phillips (1987:7), is that it offers a powerful self-access facility; that is, it helps to generate autonomous learners who will experience freedom of choice.

Another advantage of CALL is that it gives a new role to teaching materials. In CALL, materials adapt themselves to the requirements of the individual student; that is, they become interactive.

The third advantage is that CALL, like other new technologies, brings about changes in the teaching methodologies of English. Computers and the Internet can give old materials a new aspect.

The advantage of CALL is that it offers flexibility for students so that they can work at their own speed at the time that is best for them. With an Internet connection, they can work at home, at school, or anywhere there is a computer. And with distance learning, it allows students with handicaps or learning disabilities the opportunity to learn in a less restrictive environment. Also, students learning via CALL gain an opportunity to learn computer skills which benefit them in many aspects of their lives.

3.5.2 The Disadvantages

The disadvantage is that teachers have to be constantly learning computer skills for promoting curriculum renewal. In order to fully benefit from the computer for language learning, language teachers have to promote skills in using computers.

Though IT is the best way for both teachers and learners to enhance the language learning experience, computers may not take the place of a language teacher. As Ahmad et al (1985:2) pointed out, "the computer is a tool, of itself incapable of

action". Clifford (1998:5) also cautioned, "Computers will not replace teachers ...teachers who use computers will replace teachers who do not."

Little interaction among users and the lack of human interaction in the learning process usually occur while working on web-based instruction because of the self-pacing characteristic: the same software and courseware are shown repeatedly, and this is said to be boring.

Restrictions applying to CALL include the need to own or have access to a computer with the necessary RAM and operating system, lack of computer skills of many students, or physical problems and the prohibitive cost of educational software. Also, sitting in front of the computer screen for long periods of time without blinking may cause eye disorders.

The computer-assisted language learning software/courseware must be designed well from the start. CALL must build on different learning styles in order to be fully effective. Therefore, it should offer different types of examples and ways to solve problems.

3.6 Conclusion

In this chapter, the term *computer-assisted language learning* (CALL) has been defined. Moreover, descriptions of the history of CALL, the development of CALL, the models of CALL and the advantages and disadvantages of CALL have been discussed. In addition, the important ingredient of software and courseware used through CALL at the Chinese vocational school was introduced.

CHAPTER 4 RESEARCH DESIGN AND METHODOLOGY

4.1 Introduction

The previous chapter considered the literature on CALL and the relevant theory in the technological field that supports this study. This chapter is concerned with the research methods and data collection strategies I adopted to conduct my research.

The research design and research methodology employed to conduct the research is very important to the reliability, validity and stability of information. Silverman (2001:1) defines methodology as "a general approach to studying topics and the choice of methods (tool) of the overall research strategies".

The methods used to obtain information for this research include a literature review (discussed in Chapter 3) and survey research (questionnaires and interviews). In this chapter, a brief overview of the study area is provided, as well as a description of the methods, data collection and proposed data analysis.

In order to collect the necessary data, I used a case study method which gives in-depth information, shows how processes work and helps us to check what is proposed and what really happens. The case study, Nunan (2003:74) argues, "is a 'hybrid' in that it generally utilizes a range of methods for collecting and analysing data, rather than being restricted to a single procedure".

I have relied mainly on qualitative research for this study. Hitchcock and Hughes (1995:54) suggest that "one of the major claims of qualitative research is that it can provide deep rich, thick description unavailable to quantitative research".

This research is primary research because the data is gathered from primary sources (Gay, 1981:11-12) and the research describes conditions that exist and processes as they occur (Cohen & Manion, 1980:116). The primary sources of this study are interviews with teachers and students, classroom observations and an analysis of the *English for Secondary Vocational School Students'* books.

4.2 Qualitative Research Methodology

There are two kinds of research methods: qualitative and quantitative. In conducting my research, I applied the qualitative research method. Patton (1987:9) argues that qualitative research methods

> permit the evaluator to study selected issues, cases, or events in depth and in detail….qualitative data provides depth and detail through direct quotations and careful descriptions of programme situation, events, people, interaction and observed behaviours.

Qualitative strategies enable the researcher to record and understand people in their own terms. In other words, they help researchers to collect firsthand information. In qualitative research, questions such as the following are answered: how, why, what? Qualitative research methods "use anthropological and sociological methods to understand the social phenomena. Data are in the form of words and phrases" (Baumgarther & Strong, 1998:175-6).

Qualitative research enabled the researcher to access unquantifiable data from what she observed and to gather the necessary data. Carl (2000:7) says, about qualitative research:

> Qualitative procedures provide a means of accessing unquantifiable facts about the actual people researchers observe and talk to or personally trace. As a result, qualitative techniques allow researchers to share in the

understanding and perceptions of others and explore how people structure and give meaning to their daily lives.

Moreover, qualitative research methodologies, such as the case study, are "naturalistic and are more convenient to use than in small-scale research" (Denscombe, 1998:208). Qualitative research enables us to discover answers to questions through the application of systematic procedures.

In qualitative research, the researcher is likely to have rich records built up from literature reviews, interviewing, observation, documents, and other events. Qualitative research always requires that the researcher explores and sensitively interprets complex data and usually treats the data as records of ideas about these research events.

Yin (2003:33) points out that qualitative research, including case studies, is characterized as being 'soft' social science, dealing with inadequate evidence. In order to review CALL in a vocational school in China, I applied a case study method to conduct my research. I used this method because it is "particularly appropriate for individual researchers because it gives an opportunity for one aspect of a problem to be studied in some depth within a limited time scale" (Bell, 2001:10). Baumgartner and Strong (1998:132) also argue that "case study research typically involves studying a person or an event in great detail and describing what is found". So I chose the case study method as the most appropriate way in which to do my research in a limited period.

Moreover, as Vulliamy et al (1990:14) say,

> the case study method in evaluation usually involves studies of much shorter duration. Typically they rely on tape-recorded interviews, and the collection of documents and, where observation is included, it tends to be limited and not have a comprehensive scale.

By using the case study method, I could apply different research techniques in

my research, because, as Kane and Brun put it,

> Case studies are also strategies in that they use interviews, observation, and documentary materials to provide insights into how and why something works or does not work in real-life, over time. (Kane & Brun, 2001:116)

The case study method has both advantages and disadvantages. Since a case study focuses on limited events, or particular persons, it is difficult to cross check information and the final results. As Kane and Brun (2001:116) point out, "they are more time-consuming than most people expect and require a mix of research skills. They do not give a representative picture but rather a detailed understanding". On the other hand, the case study can be described "as an umbrella term for a family of research methods that has a common decision of focussing an inquiry around an instance" (Bell, 1993:8).

4.3 Location of study

 I did my study in a vocational school which is located in the northeast part of the country, in Shandong Province in China. The school is in an urban area. It is a public school and imparts to the students practical skills needed by the society. English is one of the main subjects at this school, and every student must learn it.

The main reason why I selected this school was that it is in my home city. I worked at this school from the time I graduated from the university until I left China in 2003. Also, I know almost every teacher at this school; the students I taught are still learning at this school. I experienced, at this school, a range of methods, from traditional teaching methods to CALL, which started from 1999 at this school. I was trained how to use some software and passed the examination. During my teaching, I tried to teach using CALL.

Another important reason that motivated me to choose this school was that CALL is commonly used at this school and there are enough facilities and equipment, including hardware and software, for teachers to teach through CALL. In Shandong Province, CALL is used to teach English from primary schools to vocational schools and high schools. The research conducted in the vocational school could benefit general education in the field of English teaching.

4.4 Selection of Sample

The headmaster, two teachers and twelve students were the respondents in the study. The headmaster described how CAI was used at this school.

The number of teachers who were observed and interviewed was two. One teacher was teaching Grade 10 and was 51 years old; another teacher was teaching Grade 12 and was young. Teachers at this school who are younger than 50 must teach in CAI, but for those older than 50, it is not necessary to teach in CAI.

The other respondents I interviewed were students. The data was collected from two grades in the vocational school in China. The first grade was selected from one class of Grade 10. The second grade was chosen from one class in Grade 12. Six students were chosen from Grade 10, and another six students from Grade 12. These students were selected according to their ability; that is, good, average and weak students from the two classes according to their final year marks in English. There were six students in both Grade 10 and Grade 12; two of them were good, two average and two weak.

4.5 Data Collection Procedures

In order to collect the necessary data, I used a case study method for which I used four research techniques. I did classroom observations to observe what the English

teachers do with CALL, and how the students learn with computers in classrooms. I offered questionnaires to students. I interviewed the principal of this school and the teachers and analysed the English textbooks used by Grade 10 and Grade 12 students. The headmaster at this school was consulted to request permission to visit the selected school. I explained the objectives of the research study to the English teachers at the school, who were willing to co-operate, and asked their permission to observe their respective classrooms and to interview them later.

4.5.1 Classroom Observations

Classroom observation is observation to provide evidence of the quality of teaching and learning across the curriculum, including the identification of good practices and weaknesses that need to be addressed. Classroom observation helped me identify the real practices of teachers teaching with the aid of computers. In addition, the multimedia materials and teachers' teaching outline were used for gathering data. Classroom observation provides an important source of data collection. Clarke (2000:81) argues that, in some situations, observation can succeed where other methods fail or prove unfeasible because the researcher faces the situation directly. The researcher from outside has no idea of the detailed information. Coombes (2001:42) says that observation offers an insider's view and can produce in-depth information. More natural behaviour can be observed; thus, an overall view of the data should be gained.

4.5.2 The Questionnaire

Clarke (2000:68) points out that the questionnaire is one of the most frequently used methods of data collection. And, the questionnaire is a major tool for collecting data. All questionnaires are concerned with description and measurement. Open-ended questions allow respondents to answer in their own words.

I chose 12 students and asked them 10 questions. Questions put to them were about how teachers present CALL, their attitude towards CALL (whether they are interested

in it or not) and also about students' habits of learning English. The language for interviews was Chinese, because students could confidently say what they wanted to say. The ultimate purpose of the questionnaire was to understand how students feel about CALL and to probe further into the theme of the research.

The participants for this project were a group of 12 students of English with computer majors with an emphasis on English as a foreign language (EFL). They ranged in age from about 17 to 20 years old. Six students were female and six were male. Students received six hours of English per week. From these six hours, students met for one hour in the multimedia laboratory, in which desks with tape-recorders and computers had been installed. This group of students was selected at random from 34 Grade 10 students and 40 Grade 12 students.

In general, as a research instrument, the questionnaire is a useful source of qualitative data, but it has its limitations, because a badly designed questionnaire will generate inadequate data. This is why I also chose another method, interviews, to collect data.

4.5.3 Interviews

After completing the classroom observation, I interviewed the principal and teachers at a time which was suitable to them. The content of the interview was on the implementation of CALL in class, constraints in the implementation of the software sources, and the content of the textbook.

Interviewing is another research method widely used to collect data in qualitative research. Dexter (1970:136) describes the interview as a "conversation with a purpose". The interview was semi-structured and open-ended. According to Cohen and Manion (1980:167), semi-open interviews use predetermined questions which explore in-depth information and allow elaboration within limits, but the structured interviews do not allow elaboration. Open interviews give the interviewee broad freedom to talk and can result in the elicitation of unexpected information.

The interviews used in this research study were semi-structured, because this is a "flexible and adaptable way of finding things out" (Robson, 1997:228). In a semi-structured interview, it is easy to avoid misconception or misunderstanding of questions. Kane and Brun (2001:115) argue that "semi-structured interviews have a clear pre-determined focus but flexibility in how the questions are put and allowance for open-ended discussion of answers".

An open-ended interview helped teachers to put forward their ideas freely. The language for the interview was Chinese, because this provided them with a chance to express their ideas clearly, freely and precisely. The number of teachers to be interviewed was two. To make the analysis more focused, I grouped similar interview questions together.

The interviews with the two English teachers were recorded by tape-recorder. Two DVDs of CALL in classes in a vocational school were used, and many video pictures and examples of courseware were saved on my laptop.

Interviewing methods are not perfect for data collection as the experiences, perspectives of the interviewers and understandings of the interviewees may influence the results of data collection. In the following section, the document analysis method is discussed.

4.5.4 Document Analysis

Documentary material provides a valuable source of information about the research. Content analysis of documents can provide a useful record of any problems, and it is important to make use of data derived from documents.

Method one of the data collection process is explaining documents; that is, the English textbooks used in Grade 10 and 12, especially in listening and oral English. Through questionnaires answered by teachers and students, I discussed the strengths

and weaknesses of the English textbooks and whether these books are suitable for the students.

Document analysis is the practice of examining a set of documents that are used to support specific goals and objectives or to ask a series of questions to assist in the determination of the applicable metadata for the documents. Document analysis may be performed as an integration project with the purpose of data gathering analysis and aggregation and presenting results (Cheetham et al 1992:37).

Document analysis too has its limitations, as Cheetham et al. (1992:43) note, in that the information contained is often "incomplete, insufficient or inappropriate to the needs of the evaluative research".

4.5.5 Triangulation

In this study, I used triangulation to corroborate my findings. Triangulation is a procedure for organizing different types of information so that they can be compared and contrasted. Triangulation involves selecting a combination of methods of data collection. Typically triangulation means collecting data from three or more perspectives. Brown (2004) says that

> One form of triangulation is to build relationships among the observations of the student, the teacher, and a critical friend. Another form of triangulation is to build relationships among data collected using various techniques, such as stream-of-behavior chronicles, questionnaires, and interviews. Triangulation gives a more balanced picture of the situation and permits contradictions which are often hidden to become visible.

Information collected will be more solid if it is collected from more than one source in a number of different ways. As Caro says, "the rigour comes in choosing and applying the method that is most appropriate to the situation, then using another method and another one until a rich body of information is gathered that puts together a comprehensive picture" (Caro, 2000:14).

Triangulation may be described as a balancing of viewpoint, especially when only a single researcher is involved. Some of the wide range of information gathering strategies I used are: Audio Tape Recording, Interviews, Digital Camera Recording (pictures), Questionnaires, Documentary evidence (textbooks) and Courseware.

4.6 Conclusion

In this chapter, I have discussed the research methods in general, qualitative research methods, and in particular, the case study used to conduct this research. In addition, the research procedure, including the research tools and techniques used to collect the data of the study, is discussed. The next chapter will deal with the presentation of the data and analysis thereof.

CHAPTER 5   DATA PRESENTATION AND ANALYSIS

5.1 Introduction

Chapter 4 dealt with the methodology and the different methods used to conduct the research. Qualitative research was assessed to be appropriate for collecting and analysing the data. This chapter is concerned with the presentation and analysis of the data. In the first section, firstly, the document analysis of the *English for Secondary Vocational School Students'* books for Grades 10 and 12 is presented, then classroom observations of Grades 10 and 12 are discussed, followed by interviews with the headmaster and the teachers and the questionnaires given to students. The last section analyses the data.

5.2 Presentation of Data

I did my research at a public school which had traditional rules. The ceremony of raising the national flag to the national anthem was held on Mondays. Every day, I was met by four students greeting both staff and students at the school gate. A compulsory custom of students was to greet the teachers at all times and to stand up when their teachers entered the class. A hierarchy between the staff and students was evidenced by the formality of respect shown to the teachers. The timetable began with four classes running in the early morning and with four classes running in the afternoon, followed by an additional two classes in the evening.

Names of respondents are anonymous for reasons of safety and confidentiality. Codes will be used to represent the respondents. The two teachers are represented by a code number: Teacher A (TA) and Teacher B (TB). Similarly, the twelve students are identified as: Student 1 (S1), Student 2 (S2), and so forth.

The information on students' background was that six of the twelve students were females. They were between 17 and 20 years of age. Six of the students were doing the computer course and the other six were doing the Marine Culture course. They were all registered as full-time students. All of the respondents were staying in a residence on campus. Six of the respondents did not have a personal computer at home or at the residence on campus at the time of the survey. But all of them had simple learning computers with a small screen and a keyboard, which were mainly used to practise typing.

According to the education policy in this province, students graduating from secondary vocational school must have successfully completed a unified English examination. Accordingly, all students must learn English. In addition, six students were doing computers because it was a prerequisite for their major courses.

5.2.1 Document (Textbooks) presentation

The textbook series *English for Secondary Vocational School Students' Book* (1 - 4) was chosen by this school to teach English to the students. The *English for Secondary Vocational School Students' Book* series was issued by the Education Department of China in 2001. It included four books with 220 teaching hours, six hours per week for the computer field, and three to four hours per week for the other fields. Every student at this school was using these English books.

Another textbook series, *Step By Step* (1 - 6), was adopted by the students who were doing computer courses. *Step By Step* trains students in oral English and listening skills. It must be taught in the multimedia language lab. Students answered the questions in the books by listening to the tape or watching the DVD/VCD via computers.

The textbook series *English for Secondary Vocational School Students' Book* (1 - 4) was conceived in 2001 by Beijing Normal University Press. The organising principle

of the textbook series is both topic- and task-based. The outline of one unit of the textbook series is as follows:

1) Warm-up

This section guides topic introduction of the unit by showing pictures or asking questions in order to motivate students to learn a new topic.

2) Listen and Speak: Task 1

This section is the first part of oral English training. Students listen to a conversation or a dialogue concerning the topic in order to understand how to communicate.

3) Read and Write: Task 1

This section is the first part of writing practice. Students read a short text or a dialogue in order to grasp the vocabulary and grammar and know how to use them.

4) Listen and Speak: Task 2

This section is the second part of oral English training. Students listen to a dialogue or short text for further communication of the topic and do oral practice.

5) Read and Write: Task 2

This section is the second part of writing practice. Students read a long text on the topic and learn how to read and write on the topic in English.

6) Language Focus

This section comprises four main parts, namely, grammar, word study, exercises and pronunciation. Students grasp them by doing more exercises or answering more questions.

7) Word List

This section shows a list of the whole vocabulary with phonetic symbols and Mandarin translation for the unit. Some words with an asterisk (*) go beyond the vocational students' level and students need not grasp them.

8) Learning to Learn

Students discuss how to learn the unit in an effective way.

9) More About

This section adds supplementary materials on the topic. Students can read them on their own.

The textbook series *Step By Step* (1 - 4), 2000 version, was edited by Zhang Minlun of the Huadong Normal University Press. The textbook series *Step by Step* was an exercise textbook for developing listening skills containing eight books; students use four of them and another four books provide answers of exercises and are used by teachers. The books used by teachers include a training focus on each lesson, and show the background of the events in the lesson, give some teaching advice and show the material read in the record in written form.

Each book used by the students was accompanied by eight tapes, on which were recorded different voices of men, women and children who spoke English as a native language with different accents, such as American English, British English or Australian English. Some conversations maintain the background noise. Each unit contains two lessons, and each lesson is arranged in three parts. Part I had warm-up exercises focusing on identification of words and sentence structures or practising numbers, dates or time, in English, by oral repetition or filling in the blanks. Part II and Part III offer long materials including conversation, dialogues or news. Students are expected to analyse items, pay attention to the details or draw conclusions by answering questions.

Both the textbook series, *English for Secondary Vocational School Students' Book (1-4)* and *Step By Step (1-4),* have tapes for every unit and lesson.

5.2.2 Classroom Observations

I did some classroom observations using CALL at this school. The focus of classroom observation was mainly to describe what happened in actual classrooms.

I selected three classroom observations. Two of the classes had adopted the textbook series *English for Secondary Vocational School Students' Book*. One was taught to Grade 10, another was taught to Grade 12. The other used *Step by Step* to a Grade 10 class majoring in computers.

5.2.2.1 Classroom Observation 1: Expressing Feeling

(Grade 10)

In my first observation, the English teacher came to class with a laptop bag and a book. Then she opened the bag and took a laptop out. She linked the laptop to the projector, which was on the ceiling of the classroom, and looked out of the windows. The desktop of the Microsoft Windows was shown on the screen, which was hung on the blackboard and could be rolled. The English teacher asked the students to take a piece of paper and close their books. She read some new words and phrases which had been taught in the last class in Mandarin and let the students write them down in English. After finishing, students passed their papers to the teacher.

The English teacher then double-clicked a file on the desktop. The cover picture of the *English for Secondary Vocational School Book II* was shown, accompanied by soft music. She clicked again, and three people's photos were on the screen. The teacher asked the students to describe what kind of feelings the three persons were expressing, in order to bring the students' attention to the lesson. After that, she clicked the mouse and the next slide on the screen showed the following information: Unit 2 Expressing Feeling   Listen & Speak: Task 2 (with several buttons on the picture) Listen & Report, Speak, Practise & Consolidate, Summarize, Homework and Closed.

The English teacher then announced that what she was teaching in this class was about expressing feeling. She clicked the button Listen & Report first, and the next slide show was on the screen with two buttons: Listen, Report. The teacher asked the students to listen to the tape, and then repeat what they heard. She clicked the button Listen, an English sentence was read, one of the students was asked to repeat it, and the English teacher clicked the button Repeat. The sentence was shown on the screen, so the students could see whether what they repeated was true or false. Six sentences were read.

Finally, the English teacher asked the students to listen to the two conversations between George and Sam, and focused on the feelings and the reasons for these feelings. She clicked again; two conversations were played twice. She clicked on the next page and two forms were shown:

Conversation 1

	feelings	reasons
George		
Sam		

Conversation 2

	feelings	reasons
George		
Sam		

The teacher gave a few students the opportunity to express their ideas one by one. She asked them whether they agreed with the ideas given in the forms or not, and why they agreed. Later, she clicked and showed the correct answers on the forms.

In the second period, the English teacher led her lesson to a conclusion by asking questions on how to express some feelings in English:

1.Expressing happiness/sadness
2.Expressing good wishes, congratulations
3.Expressing desire

The students started to read points for discussion from the slide show on the screen. They discussed the points in groups in their mother tongue even though it was an English class. I noticed some students used electronic dictionaries to check the Chinese meaning of some English words. Some minutes later, the teacher gave some students in each group time to express their ideas. She also gave them a chance to voice their opinions about expressing their feelings in different cultures, and she clicked and showed some idioms.

Finally, the teacher summarized the "feeling expressions" lesson in English and proceeded to the homework:

1.Master all we learned today.
2.Describe expressions of feeling excited and feeling disappointed.
3.Be ready to make a presentation before the whole class.

At the end of the observation, the English teacher clicked again, and the courseware returned to its main page. Then she clicked the button to close. The English teacher's name and the school's name were shown on the screen with soft music, and the teacher bade the students goodbye. The students stood up and saw us leave.

5.2.2.2 Classroom Observation 2: Cross-Cultural Understandings

(Grade 12)

In observing the second English teacher, I used the same format to observe what the teacher did in an English class. The English teacher entered the class with a laptop. She opened the laptop and linked it to the platform (Figure 10); then she clicked a file on the screen showing Unit 6: Cross-cultural Understandings. She asked the students what 'cross-cultural' means. After listening to the students' ideas, she clicked again and some Chinese characters which translated the word 'cross-cultural' appeared on the screen.

After that, the English teacher started to teach the new lesson by clicking the mouse into the warm-up section in another page on the screen. She asked the students to work in groups, look at the pictures, and discuss the following question: Where do you think each person comes from? Why do you think so? Then she showed several pictures, and the students guessed where the person came from. The teacher clicked and showed the correct answers, step by step.

Figure 10

Then, in the second period, the English teacher asked the students to work in small groups, discuss the behaviour described in the situations which would follow, and decide what could happen in similar situations in China. The English teacher showed ten situations. For example, in the UK or the USA, when invited to a dinner party, people usually arrive within fifteen minutes of the planned time; what happens in China? The teacher told the students to elect their spokesperson and which students should play the leadership role, and the teacher gave numbers to the groups.

Later, group leaders started to report the ideas discussed by the group, one by one, and the teacher asked the class whether they had comments on the difference in customs between Western culture and Chinese culture. The class continued until all the spokespersons had finished presenting their group's views about the ten situations. Finally, both the teacher and the students categorised each custom according to the different situations. Here, the students answered in chorus when the teacher asked about the Chinese customs in the situations. During this period, the English teacher also paid more attention to language points: phrases, idioms and grammar, etc., and let the students write them down.

In the third period, the English teacher continued to teach Listen & Speak: Task 2 -Gesture. She indicated that gestures are useful body language, and showed several

pictures to let the students work in pairs and discuss the meaning of these gestures. The teacher went round the class to help students during the discussion.

At the end of the period, the English teacher repeated the main points of the text. Three slides showed the word point (the difference between 'within' and 'in'), the culture point (different name order between Western culture and Chinese culture) and the grammar point (the difference between 'start to do' and 'start doing'). The students were asked to give some examples relating to the specific differences.

Then the teacher closed the lesson, advising the students to collect other customs from Western and Chinese cultures. She indicated they could collect information from the Internet, newspapers or magazines.

5.2.2.3 Classroom Observation 3: UNIT 26: TRAVELLING (I)
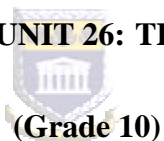
(Grade 10)

Figure 11

The lesson was given in the multimedia language lab (Figure 11), which contained 56 seats. When we entered the lab, the English teacher switched on the power, and then

she logged into Microsoft Windows XP. Students sat down and pressed some buttons to make recorders and computers stand by, and then they put on earphones. When students switched on, the light beside their desk number, such as A1, D3 or F6, on the teacher's desk went on.

Figure 12

The teacher told the students to keep quiet and announced that the class was beginning (Figure 12). She then asked students to open their books to Unit 26: TRAVELLING (？), Lesson 51. The teacher asked students whether they like to travel. The students pulled down microphones and answered 'yes', cheerfully. The teacher kept on asking, "Do you know how to communicate in English while travelling in foreign countries?" Students answered 'no' or 'I am not sure'. The teacher said, "Today we will learn how to communicate in English while travelling in foreign countries." She put a tape into one recorder and students heard the following: "Unit Twenty Six: Travelling One, Lesson 51, Part 1, Warming-up Exercises, Numbers and Time: Around the World, Listen carefully. Write the miles and the hours and the minutes". Ten sentences were heard, and before each sentence was read, the sound of a bell called students' attention, students wrote down what they heard on the blanks, the teacher played the tape again, and then students were asked to give

their answers through microphones. I noticed most students showed a correct answer; the exercises seemed easy to them.

The following task was to listen to Part II: Travel Books. Before listening, the teacher explained this record would last two minutes, thirteen seconds. Then the teacher mentioned a training focus and showed a table on computers (Table 1), which she explained. She pressed a key to play the tape again. She played the tape three times, and the exercise was**: "**complete the outline with the information you hear on the tape". Then students were asked to provide their answers, and I noticed some students showed wrong answers.

Table 1

Part II	Travel Books	
Training Focus	Background Notes	Suggested Techniques
Selecting specific details When we listen to different materials we have different purposes. Sometimes we only need to know the main ideas, but some times details are what we listen for. In the next five units, the students are expected to develop their ability to identify and select specific details.	Nowadays, during vacation, people often visit another city or country as a form of enjoyment and relaxation. More and more colour films about various places are being turned out to attract people. These films are called travelogues.	The passage "Travel Books," like many other informative materials, offers detailed information in a well-organized and easy-to-follow fashion. People who are interested in such materials usually want to seek detailed information to help them form ideas or make decisions. Ask the students to imagine themselves to be ready for travelling, and to try to absorb all the related information from the passage. Tell the students to read the outline in the exercise first and then listen to the passage. The outline will help them select the specific details.

The teacher said the following task was Part III: Seeing the Travel Agent, which lasted one minute, five seconds, and she showed a table, again using computers (Table 2). She pointed to the brochure and explained, using the information in Table

II. Then she played the recorder; it was a conversation, with two exercises: Exercise One: Answer the questions and Exercise Two: Fill in the blanks with the words you hear on the tape. After the tape was played three times, students were chosen one by one to answer the questions. I noticed some students said 'sorry', which means they got no answer or they gave up listening to the tape. But students answered the second exercise better than they had done the first exercise.

Table 2

Part III	Seeing The Travel Agent	
Training Focus	Background Notes	Suggested Techniques
Selecting specific details	" Brochure " is an other word for " pamphlet. " A brochure has colored pictures of possible hotels to stay in as well as pictures of interesting tourist sites and activities. Addresses and prices are usually included.	When people have already had some idea about their plans, they sometimes still need to consult others and seek information ---- to extend their knowledge, to doublecheck their arrangements, or to improve their plans. This kind of listening calls for focused attention. Ask the students to read the questions in the exercises before they listen to the material, and decide what specific details to focus on and what to ignore.

After showing the correct answers to students, the teacher gave students ten minutes to review what they had heard. Students were permitted to ask the teacher questions, and if they wanted to do this, they had to press a red button on their recorder, at which their desk number on the teacher's desk would show a flashing light; the teacher would press the light button, and he/she could communicate with the teacher without the other students hearing anything.

The teacher made sure no students asked questions before she put a CD into the CD-ROM drive and played a video on travelling. The teacher told students to enjoy it and listen carefully. I found students were happy and enjoyed watching via computers.

After finishing it, the teacher asked some questions and let students answer freely; then she showed the correct answers and rewound it to the relevant point.

Before the bell rang, the teacher informed students that they must record a tape on their own in English about what they learnt that day and hand it in the next day. Then the class was over. I sat at the back of the laboratory, and I noticed one student wrote down very little on the exercises in his book. During the break, I asked him the reason. He said that in junior high school, his English was very poor. He knew little about grammar and vocabulary, so even if he tried to listen, he understood little. Another student complained that Part II and Part III were difficult for them and that there was only a tape accompanying the textbook, but no video materials.

The next section describes the interviews with the principal and teachers.

5.2.3 Interviews

5.2.3.1 The headmaster's interview

I interviewed the headmaster of this school for three hours, and asked him nine questions (See Appendix C). I began the conversation by asking the reason why computer-assisted instruction (CAI), including CALL, was chosen at this school. The headmaster stated that CAI and CALL were useful for both the teaching and learning experiences. He proceeded to talk about the school.

He said that as a province-level school, this vocational school must build the multimedia school network. Furthermore, in November, 2000, the Education Department of China implemented a policy (see Chapter 2) to set up a schools' Intranet by which schools could communicate via Internet throughout the whole country. Computer use was popular in society, so teachers and students should know how to use it.

The second question was about the school network. The headmaster described the electronic monitoring office where DVD/CDs could be displayed to every classroom and where he could monitor every classroom, one multimedia lab where the teachers could practise and discuss how to improve their computer-assisted teaching skills, two multimedia language labs, and 36 classrooms at this school, which were set up with multimedia projectors and audio/video functions.

The third question was about how the teachers know how to use computer-assisted teaching. The headmaster stated that several years ago, the teachers started to train in how to use the computer software in their teaching. All teachers under 50 must learn how to use the computers and pass a computer test set by the Education Committee of the city. The teachers had learnt how to use DOS, Microsoft Windows, Office, Word, Excel, PowerPoint and Internet Explorer. Now the teachers were learning Flash. Teachers over 50 had the right to choose to do computer courses or not.

My fourth question dealt with equipment using CAI/CALL. The headmaster told me that, at this school, there were four IT labs and an E-reading room with 350 computers, servicing about 2,000 students every year, and 120 laptops for teachers. Laptops were chosen because it was convenient for teachers to prepare teaching documents both at home and at the office, and to teach in the classroom.

According to the headmaster, the school offered enough E-books for teaching and learning. He said,

> There is a database in our school, including 356 video tapes, 827 VCDs, 350 cassettes, 2400 projection films, 1759 transparencies, 240G sources, 60G teaching sources, 40G E-Books, CD-R 240 discs and enough software for teachers to make courseware.

In my fifth question, I asked the headmaster about whether every teacher must teach with computers. The headmaster answered as follows:

At present, no. Some teachers used computer-assisted teaching 10 times a week, some teachers, once or twice a week. But our aim is gradually to teach without a blackboard.

Question six dealt with the advantages of CAI/CALL. The headmaster stressed that CAI/CALL were helpful in stimulating students' learning interest and improving their achievements. Though CAI/CALL was adopted at this school several years ago, teachers and students liked to learn using them gradually.

Question seven was about CALL. The headmaster pointed out that the students were learning three foreign languages: English, Japanese and Korean, which were taught in two language labs and in classrooms. Students learnt Japanese and Korean more easily than English because they could meet many Japanese and South Koreans in their hometowns and have a chance to work in Japan and South Korea. They learnt English as a subject, not as a language tool. They remembered English words and forgot them easily if they did not use them. CALL could demonstrate various types of English (British, American, Australian), which was informative and interesting for students who are learning English. Some English teachers spoke poor English, which would affect students, but CALL could provide Standard English to students, and avoid this problem.

Question eight was about teaching using CALL. The headmaster agreed that courseware design was beneficial to CAI/CALL. His main points were, first, courseware design could show interesting texts clearly to students; second, the same grade and the same subject used the same textbooks, so teachers could work together to design courseware and share information with each other, and courseware could be used for many years if texts did not change; thirdly, teachers could use computer-adaptive testing (CAT). Teachers could also access many test papers on the computer. When giving a test, they could choose a test paper from the computer. Teachers could download the latest information from the Internet, which could not be

found in the textbook series. Teachers also provided websites to students to encourage students to learn on their own.

For my ninth question, I asked the headmaster to talk about the problems of CALL. The headmaster mentioned the following problems:

1. During working hours, some teachers may play games on their laptops.
2. Some teachers use other teachers' courseware, which may be unsuitable for students who have different majors.
3. Someone once said, "In many parts of China, the electricity is not enough in summer, because of air conditioners and many electric tools used almost every day; too many computers used will waste much electricity."

5.2.3.2 The teachers' interview

I interviewed the teachers over a four-week period from May to June, 2004. I have grouped similar questions. I put 10 questions to the teachers. The teachers interviewed were the ones who were observed, and their codes are the same as in the classroom observations, that is, TA and TB. Both of the teachers whom I interviewed were females. The interview did not include male teachers, because there were no male English teachers at the school where I conducted my study. Besides this, I also talked about CALL with eleven other English teachers, though these were not formal interviews. Extracts from transcripts of the interviews with English teachers are attached as Appendix B.

The first question was about how the English teachers develop their approach to teaching English. There are 13 English teachers at this school. Three of them have bachelor's degrees, two of which are related to English, and another has a history degree. Two English teachers said they used to teach other courses. English teachers are required in many schools, so some teachers are asked to change their teaching courses. Seven English teachers learned English at universities for three years or two

years. Two teachers over 50 learned English in a local teachers' training school for several months, twenty years ago, and kept on training and learning English on their own. TA learned English for two years at a local university, and TB learned English for three years at a good university. Though most English teachers cannot communicate effectively in English, they have a good command of grammar.

The second question dealt with teachers' views on CALL. Thirteen teachers teach English with laptops. I chatted with them, and most of them had a positive attitude to CALL. Some of them found CALL interesting. One of them said teaching with a screen via a computer and projector focuses students' attention on the teaching outline on the screen. The English teachers complained that they could not use CALL in every class because they had to finish teaching texts and prepare for the general English test in the province. They have no time to use CALL completely. A fifty-one-year-old teacher said she only played tapes and CDs in CALL because it was difficult for her to learn how to use software, especially to design courseware. And after four years, she would retire.
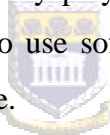
During the interview, TA said she enjoyed teaching via computers. She pointed out that CALL can use the Internet to retrieve information and broaden teachers' and students' perspectives, also saving money and time. Computers used in the classroom can provide both live knowledge and encourage students to participate in communicating. Another teacher, TB, said she taught with a laptop but did not like CALL because it would divert students' attention: they might pay more attention to films, flashes, or pictures than to English.

TA felt that CALL, at the beginning of English learning for a student, may improve the student's interest in English. But TB said, "Yes, students have a good command of the computer, but they don't learn English with it; they play games and chat through the Internet."
The third question focused on the teaching techniques or strategies that teachers choose, that is, the use of CALL or traditional teaching methods. Ten of the thirteen

English teachers like traditional teaching methods. They said that in China, English teaching revolves around testing instead of communication. Vocabulary, grammar and reading skills are very important for students to pass several of the English examinations. In these examinations, no attention is paid to English speaking. However, vocabulary, grammar and reading need not be taught with CALL; the students can grasp these well with traditional teaching methods. Three of the thirteen English teachers thought that CALL is new and not sufficiently developed for teaching English at this school. They complained that CALL wasted their time, and they thought there was not enough software for English teaching, so they had to make courseware in order to teach through CALL.

Question four was concerned with what the teachers felt about their training in CALL. Both teachers admitted they got some training on how to teach through CALL, but not enough. When they were teaching through CALL, they always experienced many problems and had to ask the help of professional teachers. With respect to the programmes they can use, both teachers chose Windows XP, Office XP, PowerPoint, Excel and Network. TA added DOS, which she was trained to use several years ago, before TB began to teach at this school, but she chose Flash, which she learned by herself. They said they knew how to use these programmes but could not use them perfectly. TB stated, "Even now, I don't think I am trained enough in computer skills to teach. I need more training, but I don't think I can meet the development of the IT."

Question five was about courseware. TA and TB made courseware on their own and used courseware in the class. While making courseware, TA liked to use pictures, tapes, a scanner and the multi-projector. TB preferred to use CDs and a digital camera, and to download information from the Internet, she also chose a multi-projector.
TB stated:

> In order to help students understand English well, I like to make courseware by using a multi-projector, a scanner, pictures, DVD/VCD/CDs, and tapes or download from the Internet. I spent my time not only in courseware designing

but also in learning how to use all kinds of modern tools and software. For example, courseware designed by PowerPoint is not better than Flash, but Page Up or Page Down in courseware designed by Flash needs to be written in professional computer language code. It is difficult for me to learn computer language code.

Question six dealt with the examination database. Both English teachers chose test papers from this database. TB liked it and said it is convenient and fair to every class. Test papers from the examination database can have some influence on the choice teachers make for examination questions. TA did not approve of this method of choosing exam papers and maintained that each school term had different teaching aims and teaching tasks. The test papers from the database were therefore not suitable, and the database wasted more English teachers' time.

Question seven referred to the use of the school intranet as a teaching aid when teaching in class. TA and TB said they liked to use it, and it was convenient. They would just call a teacher in the monitoring office, and he would put CDs into the main computer. The English teacher only taught with the help of remote control. They also complained they had no extra time to teach listening and speaking with the help of CDs as they had to finish the teaching content according to the teaching plan which was designed by the provincial education committee and focused on grammar and reading. Both of them liked the school website, which was linked to the local education website (http://www.rczz.com).

Question eight dealt with the language medium used in English classes when teachers teach English in class. Eleven of the thirteen English teachers liked to teach English in both Chinese and English. They said if they teach in English only, students can not understand well. And they were not sure about their oral English. They did not want students to misunderstand.

Question nine focused on teachers' views on the performance of the students. In responding to this, all teachers stated that their students were not in the habit of

learning with computers and, as a result, they were not developing their CALL ability. One teacher (TA) added that the problem was the students' backgrounds: that they had not received adequate grounding at the lower levels. She commented:

I guess students don't like to learn English because they are not interested in it, so when they started to learn English, they didn't learn it well, Year after year, they can not remember vocabulary, know nothing about grammar, and thus they can not match the level of the grade. Finally, they give up learning English.

Another teacher (TB) added:

As a student, English is very important for students to enter the university, so the teachers and their parents force students to spend a lot of time learning English, which results in a great hatred of English.

Question ten, which was the last question, referred to the content of the teaching materials. Most teachers liked the textbook they were using. It was a new one, with tapes. However, TB said some of the voices were Chinese and not native speakers, so students could not learn Standard English. TB said another textbook, *Step by Step,* was better, but only a few classes, such as computer majors, chose this textbook.

The next section concerns the questionnaire distributed to students and shows their responses.

5.2.4 Questionnaire administered to students

The questionnaire was composed of ten questions in all. It was distributed to twelve students in Grade 10 and Grade 12, and they answered the question in the meeting room; every student finished the questionnaire. The following are some of their responses.

This section focuses on the questionnaire administered to students. The questionnaire was distributed and collected during my visit to the school in May 2004. Six Grade 10 students and another six Grade 12 students participated in the questionnaire. All

spoke Chinese as their mother tongue. Six out of the twelve interviewees were female. This was not a deliberate choice: the teachers selected students according to their ability. The students were categorised into three groups, namely, good, average and poor students. Names of students have been kept anonymous for the sake of confidentiality so the names are codified as numbers; for example, student one is codified as ST1, student two as ST2, and so on. A detailed description of the students is given in Table 3 below.

Table 3 Profile of students interviewed

Students in Grade Ten

Student	Gender	Age	Ability
ST1	M	16	Poor
ST2	F	16	Good
ST3	M	16	Poor
ST4	M	16	Average
ST5	F	16	Good
ST6	F	16	Average

Students in Grade Twelve

Student	Gender	Age	Ability
ST7	F	18	Average
ST8	M	18	Poor
ST9	M	18	Average
ST10	M	18	Poor
ST11	F	18	Good
ST12	F	18	Good

Question 1 asked students about their feelings about English and whether they liked it. Most of the students had no particular feelings about English, except ST2, ST11 and ST12. For the three good students, English was their favourite subject because that was the subject in which they scored the highest marks, and they could communicate in English. Another good student, ST5, said she learnt English for her parents' sake, since they hoped she would learn English well, but she did not like it.

Question 2 inquired if their English skills play a role in their future careers. Students were asked to respond by ticking the relevant answer in the following statement: "I learn English in order to pass the exams, to enter a university, to study in another country, to have a good job, for example, a job in a foreign company in China. I learn English to communicate with foreign visitors or because my parents and teachers force me to learn, or because I like it." Two of the twelve students chose "I learn English because I like it". Three chose "I learn English in order to enter a university". The rest of the students chose "I learn English in order to pass the exams". No one chose "I learn English in order to have a job in a foreign company in China". I noticed this at that time, and asked them the reason. They laughed and told me they need Japanese and Korean instead of English in their hometowns. One student said he learnt English because his parents and teachers forced him to learn. These responses reflected that students had little motivation to learn English.

Question 3 dealt with students' views on CALL. When the students were asked whether they liked CALL or not, all of them said they liked CALL, which is modern and shows a different perspective to them. They claimed that CALL in the classroom is very interesting.

Question 4 asked students whether CALL was effective in their English learning. Eleven students chose 'yes'. One student answered, 'maybe, but not sure'. The students whom I interviewed said CALL improved their marks from 7-8 % (ST2) to 30% (ST4). Average students improved more than low- and high-level students;

students in Grade 10 improved more than those in Grade 12. Furthermore, the students said CALL let them make great progress in listening.

Question 5 asked whether students knew how to use a computer. Student interviews confirmed that all the students (12) interviewed knew how to use computers and how to go to the Internet. Ten students were introduced to English through the Internet by watching English movies or listening to English songs. Two students used English software, including DVD/VCD/CDs by computer, four students used computers to check English words (by JSCB - an electronic dictionary designed by the Chinese, which can be installed in Microsoft Word), and five students used computers to practise English exercises. All of them used computers to play games individually or by Internet. Five students used e-mail.

Question 6 focussed on learning in multi-language labs. Grade 12 students answered they had no chance to learn English in multi-language labs because they were learning Marine Culture. In this school, Japanese, Korean and Computer Science students had opportunities to learn languages in multi-language labs. They were looking forward to learning English in multi-language labs. Six students in Grade 10 liked to learn English in multi-language labs, but they said they wanted to change teaching contents some time as the content of the textbook was not sufficient. They hope to practise not only listening but also oral English, and they said a weekly class in a multimedia language lab was not enough.

Question 7 asked students whether they owned computers and whether they learned English using CALL on their own. According to the responses, five out of the twelve students own their PCs, and other students said it was convenient to use computers at an Internet cafe as it was cheap, one hour's Internet access costing only one Yuan (about one Rand). Two students learn English using their PCs. It seems evident that those students whose home environment does not encourage English learning for pleasure may not develop a habit of using CALL. ST11 had a PC (personal computer) and some software in English, and she used these to learn English through CALL.

Question 8 required students to tick all learning activities that they use to learn English. The question revealed that from the lower level up to Grade Ten or even Grade Twelve, these students were dependent on teachers instead of learning English on their own. All of the students said they learnt English mainly in the classroom, but they did assignments outside classroom or at home, on average for 10-50 minutes every day to do assignments or learn English on their own. The students said they had no chance to speak English outside the classroom.

The parents of the students generally did not teach English to the students since they knew only a little English. However, they forced their children to learn English. ST4 had a private English teacher. His parents employed the teacher for half a year; he had to learn English six hours at every weekend, and his English ability had improved from poor to average. The mother of ST11 was an English teacher in a high school, and she had learnt English from the age of three. Her mother taught her at home, so she liked English very much. She was an A student and had changed from high school into this vocational school at Grade 11 because of illness.

Question 9 asked students to tick which statements were true for them regarding the use of computers. Seven students chose typing. Five students chose QQ[4] or MSN chatting. Twelve students chose playing games. Only two students chose learning with computers.

Question 10 asked students their views on the texts. Concerning English books, three students said they were "funny and easy", three students said they were difficult, and six students said parts of the texts were difficult. Examples given were exercises or new words or Read and Write: Task 2, and so forth.

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[4] QQ, originally called OICQ, is the most popular free instant messaging computer program in China. It was initially developed by Tencent Inc. It is estimated that the users of QQ in China number more than 15,000,000.

ST1, ST3, ST8 and ST10 complained that the textbook was too complex and stressed that it was beyond their level. This has affected their motivation:

> I can not remember so many new words and the passages are really difficult to me, I am not motivated to learn English through the textbook series. (ST8)

However, good students responded differently from the other students. ST12 stated:

> It is almost OK with me. I always scan the texts before they are taught by the teacher. I can understand them by myself.

ST11 complained that the topics of the units in the textbook series are very old, and are evidently situated in Chinese culture. She said:

> The topics in our textbooks are old, such as 'Television', 'Our Day'. Some topics are about Chinese culture, such as 'Yuan Longping and Hybrid Rice'. Learning English must help us become familiar with the Western cultural background, so we get to know popular English, or we will have culture shock.

When students were asked for additional comments, ST11, ST9, ST1 and ST5 suggested the shortage of CALL:

- I wish we had been taught by CALL at the beginning of English learning. (ST1)
- I hoped to be taught by foreign native English speakers, not by Chinese. (ST11)
- I hoped that teachers' courseware would be funny and easy to understand.(ST9)
- I hoped we could talk English with computers (computer-mediated communication). (ST5)

This section presented the data gathered from classroom observations, interviews with the headmaster and teachers, questionnaires to students and an analysis of the English textbooks. In the following section, I analyse the data.

5.3 Analysis of Data

This section analyses the data I collected and provides an answer to the main research question which focuses on reviewing how the students learn English with the aid of CALL at this school.

5.3.1 Document (Textbooks) Presentation

I analyse the textbooks, and I focus on the strengths and weakness of the English textbooks in the following section.
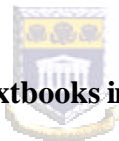
5.3.1.1 Strengths of the English textbooks in CALL

The textbook series *Step By Step* (1-6) had to be taught in the multimedia language lab, because every lesson must be shown by tapes or VCD; the students answer the questions by listening to the tapes or watching a VCD, which means CALL.

Topics of each unit in the textbook series *English for Secondary Vocational School Students' Book* make it easy for the teachers to obtain more DVDs/VCDs on this item and English teachers would like to teach with DVDs/VCDs using CALL.

Tasks are designed in an integrated way with writing, listening and speaking activities, and this is good for English skills development. It is also easy for teachers to create the courseware which is used to teach in CALL.

Tapes of the units showing standard oral English are convenient for teachers to teach via CALL. Students can download more information on the topic of the unit from the

Internet on their own.

5.3.1.2 Weaknesses of the English textbooks in CALL

The texts in the textbook are almost all authentic. Nevertheless, being authentic and matching the students' interest is not enough; the text should be of importance for learners when they leave the English classroom (Nuttal, 1996:172). In the secondary vocational school there are texts which are authentic but these are not important for students' future careers. Texts did not provide practice on how to write an application letter for a job, or on reading a questionnaire and selecting criteria for their future careers. CALL also does not touch this field.

English in the texts is mixed. Some words are in American phonetic symbols, some are in British phonetic symbols. The same applies to the tapes: some texts are read in American accents, but some are read in English accents or 'Chin-English'. The manuscript of the textbook was checked by Cheryl Moen, who is an American expert, and Lynda Taylor from Cambridge University in the United Kingdom. The materials in CALL can not avoid mixed English.

The content of each unit is too much. For example, Unit 2, *Our Day*, for Grade 10 is 13 pages long. Teachers cannot teach every task in the unit with CALL, or teachers cannot finish the teaching by the end of the term because this needs more time.

The content of the texts gradually becomes more difficult. Eight students in Grade 12 complained that Book IV was difficult for them, even for teachers trained in CALL. I agree with the students that in general the content of the texts is a little difficult for the students and some content needs editing.

5.3.2 Classroom observations

To begin with, the main aim of classroom observations in this research study was to observe how teachers present their CALL lessons, how students interact with these

lessons, and finally, to identify what factors affect the teaching and learning of English using CALL in the classroom.

I noted whether teachers introduced the lesson and presented the objectives of the lesson clearly. I also attempted to observe the teachers' and students' activities in the teaching and learning process. The way the two observed teachers presented the lesson, their similarities and differences, and the mixed teaching methods in CALL are explained in detail in the section that follows.

5.3.2.1 Classroom Observation 1: Expressing Feeling

(Grade 10)

The courseware was designed by Flash 5, which is attached in a CD. The teaching method paid more attention to an audio-video, lingual approach. Most of the time, the teacher was translating the ideas into the students' mother tongue though it was an English class. Using the mother tongue is useful. However, the reason the teacher was translating the lesson into the students' mother tongue could be because it was a little difficult for the students to understand the context. The section presented in the text was beyond the level of understanding of the students, and the students were unable to express their ideas in English.

Teaching via projection onto a screen, to many students, was not much better than teaching face-to-face or through individual learning in the IT lab; teachers could not take care of every one of the students.

While the laptop and projector were being used, I noticed that a few small mistakes occurred, and the teacher had to try again to operate the appliances, which showed that teachers needed more training and practice in IT. Also, I noticed the facial gestures and movements of the teacher are replaced by a focus on the computers' screen.

5.3.2.2 Classroom observation 2: Cross-cultural understanding

The courseware was designed in PowerPoint, and is attached in a CD. The courseware was made in both English and Chinese, and the teacher taught English using English and Chinese. Students liked this as they could understand the English lesson well with Chinese translations.

In China, there are usually many students in one class. This is true of this school. This phenomenon can be seen in Figure 4, Chapter 2. There were about 40 to 50 students in one class. Teachers could not take care of every student.

In both classroom observations, I noticed the English teachers adopted group discussion in the class. Group discussion is a good teaching method to activate students in English learning so they can provide assistance to each other. In this research, there is evidence that students learn better when they cooperate with other students than when they work on their own.

I also found that one of the teaching strategies which two of the teachers were applying is the Socratic Method, which means question and answer. For example, two English teachers started to explain the topic of the unit by asking questions, and during the second teaching period (see section 5.2.2.1), both teachers asked questions of students. The questions asked in the teaching and learning process were used to assess students' background knowledge, to focus attention, to aid the organisation and recall of information, and to frame the whole lesson. They fostered critical thinking, evaluation and knowledge application in students and were frequently used in assignments and class discussions. This method provided the basis for independent learning.

5.3.2.3 Classroom observation 3: Travelling

Because they were teaching in multi-language labs, the teachers were used to teaching with tapes, which were accompanied with the textbook series *Step by Step* without CDs. If the teacher had finished the planned teaching tasks according to the text in one class, she would choose some VCD/DVDs and show them to students.

I noticed students were proficient in using the multi-language lab and they liked to learn in the lab, but there were not enough seats for students. One lab had 56 seats. A temporary power cut or faulty operation might cause media equipment to become out of order, which might result in students not being able to use their computers or microphones.

5.3.3 Interviews

In the above section, I analysed the classroom observations; in the next section I will analyse the interviews from the headmaster and the teachers.

5.3.3.1 The headmaster's interview

The headmaster described the CAI and CALL at the school. He admitted that CAI and CALL started at this school only a couple of years ago, so they needed more exposure. Though the school offered some equipment and computer training for teachers which lasted many school terms, they still could not meet the students' and teachers' demands. Schools need more time and larger budgets on CAI/CALL. The headmaster thought the school offered enough E-books, but some of them could not be used in teaching directly: teachers still made courseware on their own.

The headmaster pointed out that CAI/CALL was indeed beneficial to teaching/learning at this school. Teachers who shared the same subject could design courseware programmes together and exchange them. Also, computer-adaptive testing was convenient to teachers and fair to students. Teachers could download the

latest information about their own subjects and encourage students to learn via the Internet on their own. It was obvious from the headmaster's interview that teachers and students welcomed CAI/CALL at this school.

5.3.3.2 The teachers' interview

Both of the teachers chose CALL in their classes, and they used the teaching courseware they had designed themselves, which was suitable for the students because the teachers were familiar with the teaching materials and the students' ability. The courseware of 'Expressing Feeling' was designed with Flash 5, paying particular attention to communicative competence (Listen & Speak) and practising oral English. The courseware of 'Cross-cultural Understandings' was designed with PowerPoint, focusing on reading competence (Read & Write) and learning grammar and phrases.

Two teachers I observed applied the small-group discussion method. The teachers gave their students questions and encouraged them to discuss issues with their classmates. The teacher went around the class to help students and to check students' activities during the discussion. After the discussion, the teacher focused on a few students who answered or asked the questions, but did not give chances to most of the students. This may be because of a shortage of time. The teachers are required to finish the syllabus according to the given schedule.

The English teachers like to teach with computers, but they do not think teaching with computers is perfect. They believe in themselves rather than in computers. Most of them said that if they had time, they would like to devise English examination papers on their own instead of choosing from complex papers on the computer; they think they know what should be focused on, but that the computer does not know this.

English teachers use information technology the most in listening instruction; next is reading instruction. The information technology English teachers use most is tapes; next are VCD/DVD/CD-ROM and USB (flash drive or HDD).

To sum up, the main findings from the teachers' interviews are the following:

1. Lack of training in applying the CALL approach to English. With the developing of IT, teachers must keep on training in how to use the software of computers.

2. The unified examination system in one province/in the nation restricts CALL.

3. A chronic shortage of software. Teachers had to take more time to design suitable courseware.

4. The teachers would rather adopt the traditional teaching method than use CALL.

5. The poor background of students from the lower levels due to the traditional methods of teaching English. Some students were not able to learn English well because of poor vocabulary and grammar learnt at junior high school.

5.3.4 The questionnaire

The main findings from the students' interviews are as follows: eleven of the twelve students admitted CALL did help to improve their skills in English, which supplied an answer to research question 2. CALL improved their marks in English, especially in listening skills. CALL was useful for students to learn English, but seven of the twelve students were not satisfied with their English learning. Students generally were not accustomed to using CALL.

Students complained that CALL was not employed frequently. The teachers could not teach with computers in every class and every day. On several days, the English teacher might only teach once using CALL. Students said CALL was employed by teachers but students had few opportunities to learn English using CALL.

Traditional teaching methods were used in CALL. For example, teachers focus on grammar teaching. The courseware designed by the teacher was boring as it often moved the content from the text into computers (only words, no pictures, flash and sounds). Students in Grade 12 said courseware made by teachers was similar; thus, there was no fresh feeling or interest to learn.

As I said earlier, students' lack of motivation to learn English meant that it did not matter whether they learn English with CALL or not. Four students said they learnt English to qualify for entering universities. Six students did not know why they needed to learn English. Three students hated English because they thought it was boring and had failed English from junior high school. In this case, if they did not want to learn, they would learn nothing, whether through CALL or through traditional methods.

Furthermore, all the students said learning English with CALL was not enough. They needed to work hard on their own.

5.4 Conclusion

The research has been conducted in one region, at one school, and this obviously cannot represent all the schools in China. Moreover, because of the limitations of observation as a data collecting technique, when the teachers and the students were being observed, it might well be that they did not accurately reveal their behaviours or characteristics. The English teachers have no time to teach in CALL in every class with their own courseware. However, from the research findings, I could at least understand how the use of technology affects the process of language learning, and the mapping of student usage patterns within learning environments. This mini-thesis can offer the suggestion of the need for further research.

In this chapter, I analysed the data on CALL from Grade 10 and Grade 12 from classroom observations, the headmaster's, teachers' and students' interviews. The following chapter will discuss the implications of the abovementioned findings and also provide recommendations.

CHAPTER 6

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1 Introduction

When looking at CALL in China, it is clear that the application of such a technology in the classroom is in its embryonic stage. But CALL has been developing very rapidly in China since 2000, when the Chinese Ministry of Education placed more emphasis on computer use in educational institutions (see Chapter 2). Most research on CALL has been carried out using subject populations at the college or high school level. Very little research in this area has been done at the vocational level, although much language instruction takes place at this level.

6.2 Summary of the Findings

This research has attempted to investigate the problems affecting students' learning of English in China through CALL. The previous chapter analysed four sources of data intended to offer a holistic perspective on the study and to meet the criteria of triangulation. These four sources were as follows:

- Classroom observations conducted in a vocational school.
- Questionnaires conducted with the two teachers and twelve students.
- Interviews conducted with the headmaster and two teachers.
- Document analysis (*English for Secondary Vocational School Students' Book* and *Step by Step*) done.

6.2.1 General findings

The general findings concerning CALL at this school indicate that although there have been increased resources at the school, this has not been matched by improved

curricula/pedagogy, and CAI/CALL is still not developed.

There was a significant change in perceptions about CALL at the vocational school. The development of CALL was rapid. I left this school in February 2003, but in May 2004, when I returned, the school had bought laptops for every teacher at this school and changed the old teacher's desk in the classroom into a new multimedia platform (Figure 10). However, there were still some factors which restricted the development of CALL at this school.

The school pays more attention to the development of media and technology than to using it for educational purposes. The school leader and the parents of the students sometimes focus on how many computers and how many classrooms have network at this school, but ignore how long a student uses the Internet and what he/she has learnt or what he/she did during the time.

The main factors which restrict the development of CALL at this school are computer hardware, software design, the teachers' lack of computer proficiency and the unified entering examination system. There are 350 computers at this school, but not sufficient for 2,000 students. Teachers had sufficient laptops but did not have sufficient software for teaching. The software in the school also could not meet the CALL demands, and teachers had to develop courseware on their own, thus occupying much teaching time. Similarly, courseware was lacking for English teaching. The teachers whom I interviewed at this school, on average, owned three to five examples of courseware, which was not enough for CALL. There was not a sufficient budget allocated for software at this school.

Twice a year each student at this school took part in the unified entering examination held by the Education Committee of the province. In the examination paper, only 10 to 15% of the questions dealt with listening skills; the rest were on vocabulary, grammar and reading skills. So, teachers and students have to spend more time on learning grammar and reading skills, and students need good memories to memorise

chunks of text by heart. Learning in this way needs no CALL.

6.2.2 The findings obtained from teachers

One of the elements hindering the use of CALL in English teaching was a conflict between the teaching aims of CALL and the pre-planned teaching programme. CALL is effective at communication and focuses on speaking and listening to English, but the pre-planned teaching programme paid attention to grammar and written English in order to prepare students to take every kind of examination. CALL will take the teachers' time to design courseware and collect information. The lessons to be taught were pre-planned and they had their own time limit, the curriculum was overcrowded, and the teachers' curriculum activities were centrally controlled. Time was allotted for the teachers while they were preparing their annual and weekly lesson plans. The time given to CALL was little, and since there was no suitable software for the teachers to use in English teaching, the teachers had to design their own courseware, which needed more time.

Through CALL, students are expected to learn more about oral English and Western culture, which does not appear in the examination. The examination still focuses on grammar and reading ability and some teachers thought it was unnecessary to teach students through CALL. They could use the textbook series to remember the vocabulary, phrases and grammar rules and they are required to finish the portions given in the textbook series in accordance with the pre-planned annual lesson plans. They felt they did not want to waste time on CALL.

Most of the teachers chose to teach according to the teaching styles that they were taught. Some teachers designed courseware or electronic teaching plans, but they just copied or scanned the texts from textbooks into the computer, and they had been taught only to apply the traditional lecture method, which was teacher-centred. Such courseware was not only boring but also ineffective.

The majority of the teachers indicated that they sometimes had problems with access to the computers. They needed to keep on training for higher skills on computers. They were trained how to design the courseware with PowerPoint, but sometimes they had to design the courseware with Flash or Net Page. In some courseware, the latter is better in designing the courseware than the former. They expressed the wish to receive more computer training.

Some teachers cannot change teacher-centred teaching into student-centred teaching. In the traditional classroom, students are more willing to pay attention to the teacher's lecture. However, teaching in CALL has the tendency to promote two-way communication between the teacher and the students, on the one hand, and between students and the computer on the other hand.

As pointed out by Warschauer, Turbee and Roberts, (1996:14), the teacher must learn to become a "guide on the side" rather than a "sage on the stage". Teachers' contributions in a learner-centred, multimedia-enhanced classroom include coordinating group planning, focusing students' attention on linguistic aspects of computer-mediated texts, helping students gain meta-linguistic awareness of genres and discourses, and assisting students in developing appropriate learning strategies.

Even though the resources are there, such as CDs/DVDs, the teachers do not have the time to use them effectively. For example, while teaching the text, the English teacher could provide audio-visual materials to explain the text instead of translating the text to the students. Some software could also convert written English into video-audio materials. The use of this software might help learners become more aware of errors so that they can monitor them in the future.

The Internet is a very important tool but both teachers indicated that they only use the Internet to find teaching materials for English teaching instead of sending e-mails,

using the chat room to pose English questions to the students or correcting the students' assignments via the Internet.

The use of a multimedia language lab was effective in CALL. All English teachers seemed to find it most appropriate. But most English teachers had no chance to teach in the language lab. There were only two language labs, with 56 seats in each lab. At this school, language labs were used not only for English teaching but also for Korean teaching and Japanese teaching. As several special fields of study had the right to use the language labs, most students in the school could not learn English in the language labs.

Tapes and CDs accompanying the textbook series are ideal materials for listening practice and easy to use in CALL. All English teachers confirmed that they played them to the students step by step, but they complained that the English in some tapes was spoken by Chinese instead of by English or American persons. They hoped tapes and CDs could offer students the opportunities of encountering native speakers of English.

6.2.3 The findings obtained from students

There was a positive attitude or feeling towards computers. The students thought that computers are stimulating, fun, helpful and easy to use. Students enjoyed communicating through the computers and also using them to enhance their learning in English. However, problems using CALL still existed.

Most of the respondents did not perceive the change from the lecture approach to CALL to be a problem. They were used to learning with the help of teachers instead of thinking and learning on their own. And they did not think CALL could replace the old traditional lecture approach.

More and more students owned their own personal computers (PCs), but few of them were used for CALL: they were used to play games. Playing games, of course, affects learning. The problem is, in order to play games or chat with somebody on the Internet, some students stayed at the Internet cafe for several days as it was open day and night. Teenagers' fascination with the Internet has become a serious social problem in China.

The students were placed in a passive position in CALL. CALL is only used by teachers to teach at this school. Students have little opportunities to use CALL on their own. The students had no extra free time; every day they had a strict schedule, which included when to get up and when to sleep. Furthermore, the students did not have enough computers to use.

Students could use the Internet at their dormitories, but few students would like to take PCs to school because they have little time to use them and teachers and their parents are afraid that their children will play games with PCs, which would affect their studies.

Electronic dictionary use is a strategy which enables students to save more time than text dictionary use. The Chinese invented a pocket English electronic dictionary with memory (a famous one is named *Kuaiyitong*). Meanwhile, it was common to use *Jinshan Ciba* (a kind of software) in Chinese schools. It can be embedded into Microsoft words. When it is open, the mouse is placed on the target word and it will translate automatically with sound and phonetic symbol. It is unfortunate that only six students admitted to using electronic dictionaries, but not often. Four used *Kuaiyitong* and two used *Jinshan Ciba*. (see Question 3).

6.3 Recommendations

Based on the findings of the study, the following recommendations are proposed.

6.3.1 Recommendations for curriculum developers

Effective evaluation systems must draw on the current CALL. At present, in China, there is no unified CALL evaluation standard; the teachers who mentioned CALL only focussed on courseware design. The curriculum developers should offer and encourage many new teaching approaches to the teachers on CALL.

Education courses should make use of computers and applications which either provide a new, worthwhile learning experience or improve on existing methodologies. One of the perspectives is to highlight a web-integrated educational model. Therefore, critical thinking about the status quo of media in vocational English instruction should be applied.

Curriculum design should put the tools of creation into the students' hands, offering flexible units that channel student creativity into effective language-learning activities. Under a teacher's guidance, students should gain valuable language practice while creating their own learning environment, such as school broadcasts in English or a students' net page, and establish contacts with students in other cities or countries through internet-based and interactive environments.

From the above research, we understand that the teachers and the students should have a place to play their roles in the CALL development process. However, in China, the participation of the teachers and the students is insignificant. The Education Department of China and the Education Administration in local government plan and design the unified teaching standard, and check it with the unified examinations in one city, in one province or in the nation. As the teachers are the main agents who know the needs and interests of the students and the students are the beneficiaries, they should be far more involved with the process of developing the curriculum.

6.3.2 Recommendations for policymakers

An important aspect of learning English well is the nature of the learning environment. The country should keep on promoting the policy of opening up to the world, encouraging cultural exchange and attracting foreign investment in China, so young persons have a chance to communicate with English speakers and have the opportunity to work in companies which have to use English. Then the students would want to learn English as a communication tool instead of as a boring subject. CALL can only be beneficial if students are motivated to want to communicate in English. To this end, opportunities for communication must be provided.

It is necessary to reform the Chinese educational system. The problem has been discussed in China for several years. The Chinese educational system adopted the entrance examination for higher education. For example, if students fail the National College Entrance Examination, they have no chance to study at university. So every kind of school has to prepare for the unified examination in the province or in the country. Teachers have little right to decide what to teach and how to teach.

The MoE in China adopted one version of textbooks for the schools on the same level and designed the teaching plan for the whole country. The MoE conducts the centralised entrance examination in China. If there was no national college entrance examination, the students would not need to use the same textbooks in order to take the examination designed for the whole country. The schools would be free to choose suitable materials.

6.3.3 Recommendations for teachers

The teachers have to learn more about the computer via training programmes and learning on their own. The teachers can play a powerful role as disseminators of knowledge if they use IT effectively. Since IT is changing rapidly, the teachers have not yet grasped the most advanced skills on computer. The school should offer

computer skills training gradually, so teachers know how to use the latest hardware and how to design courseware with effective software.

Most of the English teachers could not integrate CALL with different teaching methods. More than half of the English teachers thought that the audio-lingual method was fit for CALL. But it is not enough. Teachers should adopt different teaching methods while using CALL; even traditional methods, if they are suitable for students.

Using CALL is not enough. English teachers at this school adopted CALL, and most of them could design courseware according to the content of the textbook series, but most students still could not communicate in English. In order to promote successful learning, tasks should be meaningful, have a true interactional component, and have a comprehensible purpose for the language student (Chapelle, 1997).

Clearly, adoption of CALL approaches should not be only for teachers but also for students. The computer should be used as a tutor and tool with which students are encouraged to participate in satisfying communicative experiences.

It seems that students tend to enjoy using computers but not using CALL. So they need teachers' encouragement and guidance on CALL. Teachers should use e-mail to contact students, send feedback of their assignments or recommend some funny websites or software in English.

6.4 Limitations of the study

CALL, as a new educational application, is facing many problems, such as the training of teachers, hardware settings, the study of teaching software, and so on. In this study, I paid attention to teaching the material from textbooks in the class and at

the multimedia language lab, not at an IT lab or through the Internet, as in the web-integrated educational model. Different schools will use different teaching methods, different teaching software, and a different school network, but this study was done at only one vocational school and in two classes with two different majors. This means it is specific to these groups, and because of the limited sample, one cannot generalize from these findings.

6.5 Relevance of study and further research

Even though the study is limited to one geographical area, it can at least give us some indication of the status of CALL in a vocational school in China. The study has also revealed issues that need further investigation. Research should be conducted to guide all sectors of education on how to act in the development of a national policy of CAI/CALL, which should be suitable to Chinese students. Moreover, research should be conducted on how teachers can be prepared for teaching in CALL, and how to motivate the interest of the students in learning English through CALL. In other words, considering CALL in English teaching is not fully implemented, further research is needed on how to develop CALL and how CALL makes English learning more effective.

6.6 Conclusion

Based on the findings from this study, it is clear that there is a conflict between the government (MoE) examination system and educational technology. CALL, under the existing education system, cannot play a very important role. From the data obtained from the headmaster, teachers and the students at this vocational school, I have come to the following conclusion:

At present, increasing the use of computer-assisted learning is a prime goal of virtually every school. CALL produces tools, learning materials and pedagogical approaches of immediate concrete value in enhancing language learning programmes. However, CALL is only an auxiliary technology-based language learning tool which can provide a superior environment for language acquisition. The students are crucial in deciding whether they can learn English well or not: if a person does not want to learn English, CALL is of no significance.

These Chinese students have learnt English for more than 10 years but still cannot communicate well in English, to some extent because of the Chinese English learning model. The Chinese traditional teaching model displayed a teacher-centred style, in which the teacher lectures in the class and the students just listen and remember. The students feel bored and lose interest in English. On the other hand, one must take into account that when teaching in a class of 30-40 students, the teachers cannot know how many students understand what is being taught and how many do not. Thus, when teaching in CALL, teachers should pay attention to the individual. CALL can take place better in a language lab than in a classroom.

There has been much debate over the use of computer-assisted language learning (CALL) in the ESL/EFL classroom over the past decade. This study has made me realise that through CALL, students have the opportunity to be involved in active, collaborative and constructive learning experiences. For the students CALL provides not only an opportunity for completing a task which can be judged as correct or incorrect, but also promotes an enjoyable atmosphere which a computer strategy game provides.

Findings from the research suggest that there is need for training in the use of the computer for both teachers and students so that students may be better guided by teachers and teachers themselves can achieve maximum results.

It is necessary to develop a team to develop CALL, especially in hardware preparation and courseware design in a school. Otherwise, it is difficult to use computers to teach English effectively. It is also necessary to have administrative support and a budget for maintenance of hardware and software, including purchasing of equipment.

This study has highlighted some of the problems associated with using CALL as a tool for language learning. It has also pointed the way to further research in this area. It is hoped that in the process, the teaching and learning of English will improve. The value of this research, then, has been to isolate the variables that impact on English CALL usage and provide feedback to teachers and the course administrator concerning feasible strategies towards a more learner-centred teaching environment.

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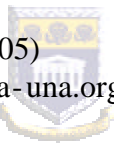
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APPENDIX A Questionnaire for students

Grade: _____

Subject: _____

(Please answer the questions honestly.)

1. Do you think you need to learn English?   Do you like it?
? ? ? ? ? ? ? ? ? ?   ? ? ? ? ? ?

2. Please tick the statement below that best describes your reasons for learning English.   ?
  _____ I learn English in order to pass the exams.? ? ? ? ? ? ?
  _____ I learn English in order to enter the Universities.? ? ? ? ? ? ? ?
  _____ I learn English in order to study in other countries.? ? ? ? ? ? ?
  _____ I learn English in order to have a good job. For example a job in a foreign
       company in China. ?
  _____ I learn English in order to communicate with foreign visitors.? ? ? ? ? ?
  _____ I learn English because my parents and teachers force me to learn.
       ? ? ? ? ? ? ? ? ? ? ? ? ? ? ?
  _____I learn English because I like it. ? ? ? ? ? ?

3. Do you like to be taught English via computers? Why? Why not?
? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ?

4. Do you think CALL is effective in your English learning?
 ? ? ? CALL ? ? ? ? ? ? ? ? ? ?

5. Do you know how to use computers? If yes, give some details, please.
? ? ? ? ? ? ? ? ? ? ? ? ? ? ? , ? ? ? ? ? .

6. Do you like to learn English at Multi- language labs? How often?
 ?

7. Do you have your own computer? Do you use it to learn English by yourself?
 ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ? ?

8. Please tick all the learning activities listed below that you use outside class. Beside each, write the average time you spend on each one per week.? ? ? ? ? ? ? ? ?
? ? ? ? ? ? ? ? ? ? ? ? ? ? ?

_____ I learn English most from activities in English classes   _____
? ? ? ? ? ? ? ? ?

_____ I learn English most from the homework assignment   _____
for English.? ? ? ? ? ? ? ? ?

_____ I watch TV programmes in English   _____
? ? ? ? ? ? ? ?

_____ I read books, magazines or newspapers in English   _____
? ? ? ? ? , ? ? ? ? ?

_____ I listen or sing English songs from CDs   _____
? ? CDs ? ? ? ?

_____ I write letters to people in English
? ? ? ? ? ?

_____ I memorise English books or an English dictionary   _____
? ? ? ? ? ? ? ? ? ? ?

_____ I play English games designed for English learner's   _____
? ? ? ? ? ? ? ? ? ? ? ? ? ?

_____ I watch English movies via VCD/DVD.   _____
? ? ? VCD/DVD ? ? ? ? ?

I engage English corners where many English learners   _____
talk in English ? ? ? ? ? ? ?

_____ I have conversations in English with native speakers   _____
? ? ? ? ? ? ? ? ?

9. Which statements are true for your use of computers?
? ? ? ? ? ? ? ? ? ?

_____Playing games _____watching movies _____listening MP^5 songs _____E-mail
? ? ?   ? ? ?   ? ?   ? ? ?

_____ English learning _____QQ chatting _____typing _____using E-dictionaries
? ?   ? ? ? ?   ? ?   ? ? ? ? ?

10. Do you think the English for Secondary Vocational School Students' Book is easy, difficult or suitable?

? ? ? ? ? ? ? ? ? , ? ? ? ? ? ?

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5 MP3, short for MPEG-1 Layer 3, is an audio compression format common on the Net these days. It can take larger audio recordings and shrink them down to a fraction of their size while losing little if any fidelity of the sound. It is a very common format with a lot of free players available online.   From http://www.real.com

APPENDIX B Semi-structured Interview for the Teachers

1. How did you learn English? Where did you develop your approach to teaching English?

2. What's your opinion on CALL?

3. Which teaching methods do you like to use? Traditional teaching or CALL?

4. Do you think you got enough training on how to teach through CALL? Please tick the following programmes that you can use

   Windows XP   Office XP   Excel   Dos   PowerPoint
   Flash   Network

5. Can you make courseware in order to let students understand English one unit well? Please tick the item you choose to use in courseware making

   multi-projector   scanner   digital camera   pictures

   CD/VCD/DVD   tape   download from Internet   others

6. Do you like to set the English exam paper by yourself or choose from complex papers in the Computer?

7. Do you like to use the school network when you are teaching in a classroom? Do you think it is useful?

8. Would you like to teach English in both English and Chinese or in English? Why?

9. Talk about the competence of the students in English. If they are weak in English why do you think they are weak and what will be the solution in improving it?

10. How do you see the content of the teaching materials? Is it helpful for developing students' English ability? If no, why?

1. ?

2. ? ? ? ? CALL ? ? ? ?

3. ?

4. ?
   ? ? ? ? ? .
   Windows XP   Office XP   Excel   Dos   PowerPoint   Flash
   Network

5. ? , ? ? ? ? ? ?
   ? ? ?

   ? ? ? ? ? ? ?   ? ? ? ?   ? ? ?   ? ? ? ? ? ? ?

   ? ?   CD/VCD/DVD   ? ?   ? ? ? ? ?   ? ?

6. ?

7. ?

8. ?

9. ? ? ? ? ? ? ? ? ? ? ? ? ? ? , ? ? ? ? ? ? ? ? ? , ? ? ? ?
   ? ? ? ?

10. ? ,
        ? ? ? ?

APPENDIX C Interview with the Principal

(Translated)

1. **Why computer-assisted teaching was chosen in our school?**

   As a province-level school, Campus intranet must be set up in our school. On the other hand, computer using is so popular in society, of course it should be used in teaching in our school, and the teachers must know how to use it.

2. **How school network used in teaching was built in the school?**

   We built one electronic monitoring office where DVD/VCD/CDs can be displayed to the classrooms, one multi-media lab where the teachers can practise and discuss how to improve their computer-assisted teaching skills, two multi-media language labs and 36 classrooms at this school which were set up with multi-media projectors and audio/video functions.

3. **How do the teachers know how to use computer-assisted teaching?**

   From last February, we started to train how to use the computer software. All teachers younger than 50 years must learn it and pass computer-level test held by the local Education Bureau in our city. And we have offered the training of Dos, MS. Office, MS. Words, MS. Excel, MS PowerPoint, Internet Explorer (IE). Now we are training how to use Flash to design the courseware. The teachers over 50 have the right to choose to learn them or not.

4. **Does the school have enough computers for teaching?**

   Yes, we have 3 IT labs with about 500 computers offering to about 1500 students every year in our school. And we bought 170 laptops to our teachers. The laptop is convenient for the teachers to prepare the teaching plan at both home and the office, and easy to teach in the classroom.

5. **Does every teacher have to teach with computers?**

   At present, no. Some teachers used computer-assisted teaching 10 times a week, some teachers 1 to 2 times a week. Our aim is gradually to teach without blackboard.

6. **Is computer-assisted teaching useful?**

   Of course, it is helpful in activating the students' learning interest and improving their achievement.

7. **How about computer-assisted language learning (CALL)? Especially in English teaching?**

   At this school, three foreign languages are taught, they are English, Japanese and Korean, which are taught in two language labs and in classrooms. Speak frankly, students learn Japanese and Korean better than English, because they

can meet many Japanese and South Koreans in our town and have a chance to work in Japan and South Korea. But they learn English as a subject not as a language tool, they remember English words and forget easily, CALL shows where, when and what English should be spoken, so it is easy for the students to remember and speak English.

On the other hand, some English teachers speak poor English; teaching with CALL can avoid this and show Standard English to the students.

8. **How do teachers teach in CALL?**

First, courseware designing can show texts funny and clearly to the students.

Secondly, same Grade and same subject share same text, so the teachers can cooperate to design the courseware and share each other. Meanwhile, the courseware can be used many years if the texts do not change.

Third, the teachers can design many test papers. When having a test, they can choose a test paper from the test database in the computers.

Fourth, the teachers can download latest information from the internet, which you can not find in the texts. The teachers also provide websites to the students to encourage the students to learn on their own.

9. **Could you talk about the weakness of CALL?**

a. In job time, some teachers may play games on the internet

b. Some teachers use other teachers' courseware, maybe it is unsuitable among different majors.

c. In most parts of China, electricity is not enough in summer, because of air conditioner and many electronic tools, so too many computers used may cause electronic lack.

APPENDIX D The contents of the Textbook (IV)

Map of Book IV

Unit	Topic	Listening & reading texts	Grammar	Word study	Vocabulary
1	School life	Memories of school days / Aims of school education / Freedom in school / Why go to school?	Reflective pronouns	The usage of "fit"	composition, decide, primary, develop, character, exam, get on with, pleasant, attitude, shape, receive, career, educate, responsible, statement, false, contribution, make contribution to, unless, process, potential, value, material, force, fit
2	Are you creative?	What is creativeness? / How to be more creative? / Creative foreign language learners / Leonardo da Vinci	Apposition in English	The usage of "non"	creative, make use of, brain, function, be responsible for, artistic, imaginative, puzzle, actively, organize, imitate, target, painter, scientific, achievement, development, independent, principal, original
3	Managing your money	Bargaining at an antique shop / A short history of money / A survey of money management / The euro	The usage of "one" as a pronoun	The usage of "suppose"	afford, final, service, suppose, owner, certain, metal, exact, contain, modern, issue, security, root, second-hand, nation, give up, vote, adopt, mark, describe, weight, stand for, bte
4	Emergencies and first aid	An accident at the tennis court / First aid measures / First aid tips for outdoor activities / A Christmas Eve flight	The usage of the ~ever words	Collocation in English	lead to, principle, delay, injury, wound, breathe, shoulder, liquid, immediate, shock, avoid, result in, maintain, normal, tip, lie down, passenger, fortunately, pilot, operator, automatic, circle, huge, use up, successfully, perfect, tower
5	Environmental protection	How "green" are you? / Causes of environmental problems / The Greenpeace / Environmental education in USA	The use of "as"	Change in word meaning	tap, escape, beat, harmful, ray, planet, cancer, weapon, give off, rapid, tropical, organization, achieve, indeed, focus, establish, fund, replace
6	Cross-cultural understanding	What's cross-cultural understanding? / Party behaviour / Body language / The importance of cross-cultural understanding	Phrasal verbs	v+ing forms as nouns	respect, relate, party, introduction, comment, contact, decrease, thumb, understanding, factor, economy, behaviour, communicate, aspect, means, frequent

Unit	Topic	Listening & reading texts	Grammar	Word study	Vocabulary
7	Urban legends	A mouse in the bottle The disappearing hitch-hiker A photo with a kangaroo A dream that came true A thief in the night	The mix use of present tenses and past tenses	Phrases of "look"	restaurant, soft drink, chat, pour, roof, funny, suitcase, garage, strangers, path, average, doubt
8	Yuan Longping and Hybrid rice	A lesson about rice China's hybrid rice Yuan Longping's busy life Way to success	The usage of much, little, etc.	believe vs. believe in	biology, concern, wonder, flash, screen, hall, platform, equally, attend, suffer (from), southwest, graduate, graduation, institute, province, experiment, occur, difficulty, observe, come true, dozen, opportunity, theory, seed, unite, state, production
9	Employment	A job interview Looking for a job How to prepare for a job interview	v+ing vs. v+ed	receive, accept; dress, wear, put on	fair, opening, applicant, therefore, coarse, impression, appearance, proudly, goal, ability
10	Crime and punishment	Legal ages in Britain Crime news Causes of crime Failure to prevent crime	Conditional clauses	forbid; steal, rob	crime, punish, punishment, forbid, pet, employer, elect, prison, send somebody to prison, marry, call for, murder, judge, call for, government, take action, disturb, bedroom, hand over, force, shoot, gun, regret, break into, wise, billion, make a living, failure, estimate, camera, make an effort to do something, break in, youth
11	Personality and behaviour	Boys vs. girls Big boys do cry Views on personality Why is everyone different?	to do vs. doing as object complement	State adverbs	behave, weep, display, author, drug, remind, partly, individual, accurate
12	Career choice	Making a decision about career What job is best for you? Work attitudes in the US	Verbs that can not be used in the progressive tenses	The usage of "least" and "most"	make a choice, match, luck, nowadays, test, employ, employee, frighten, rule, competition, importance, labour, engineer, technical, outside, stress, tense, steel, accountant

Contents (目录)