All Graduate Projects   Graduate Student Projects

Summer 1999

A Multimedia Resource Manual to Facilitate English Language Instruction for Elementary Youth in Taiwan

Mei-Wen Su

ABSTRACT

A MULTIMEDIA RESOURCE MANUAL TO FACILITATE
ENGLISH LANGUAGE INSTRUCTION FOR
ELEMENTARY YOUTH IN TAIWAN

by

Mei-Wen Su

August, 1999

The purpose of this project was to develop a multimedia resource manual to facilitate English language instruction for elementary youth in Taiwan. To accomplish this purpose, a review of current literature regarding multimedia technology in English language instruction for EFL/ESL learners was conducted. In addition, unit overviews, objectives of lesson plans, learning activities, teaching strategies, and instructional materials were adapted and developed.

ACKNOWLEDGEMENTS

My graduate project is dedicated to my husband, Yen-Tzi Lee, and my three children, Chia-Lin, Yi-Chen, and Chien-Hsun. It would not have been possible without my husband's encouragement and gracious support. I thank my family, especially my children who are so proud and supportive, even if they can't figure out exactly what drives me to pursue my graduate study.

I would like to express my appreciation and gratitude to Dr. Jack McPherson for his guidance and generous assistance in preparing this project throughout my entire course of study at Central Washington University. I would also like to thank Dr. Gregory Chan and Dr. Carol Butterfield for their participation as members of my committee.

Very special thanks to Dr. Kenneth Reeder, a professor of Department of Language Education at University of British Columbia, Vancouver, B.C., for generously providing reference materials and experienced advice.

Another special thanks to Randi Freeman, a professor of International Language Department at Central, for her enthusiastic support of my research. Sincere thanks also to Jennifer Jaques, a reference librarian at Central Washington University, for her help with the use of computer research.

Finally, I would also like to thank my warmhearted friends at Central for their comfort given to an EFL/ESL graduate student.

TABLE OF CONTENTS

CHAPTER 1

BACKGROUND OF THE PROJECT

Introduction

> We live in a world of rapid communication and increasing
> intercultural and interethnic contact. As the nation seeks to hold
> its own in the global marketplace, maintain its security in a
> changing and volatile world political environment, and come to
> a better understanding of its complex cultural heritage, it does
> well to recognize that citizens who are bilingual and have a
> good understanding of different cultures are assets to the nation
> (National Board for Professional Teaching Standards, 1996)

As illustrated in the above statement, the developed world now is already

entering the information age and a new globally networked society. Politics and

economy are so involved and related among the nations. In particular, economic

activities and growth are based on the exchange of information and the development

of knowledge. All of these will rely upon the language acquisition of citizens; in

other words, possessing a bilingual ability will aid to better understand different

cultures, communicate effectively, and eventually promote the nation's economy.

Hence, the bilingual policy of a nation becomes essential and imminent.

Jenkins (1990) depicted that technology is shrinking the world into a global

society, into a new society built on a knowledge-based economy. The advent of this

new era will demand new educational requirements--for development of higher-order

thinking skills to effectively utilize the technological tools of the twenty-first century.

In effect, we will have to educate a population to think creatively, productively, and

1

prolifically. To adequately prepare a generation for this technology-based information age, we must foster a positive predisposition toward learning. The best entry point for beginning this technological education is with the young children.

According to research conducted by Mielke and Flores (1994), multimedia technology (e.g., computer software, compact disk, CD-ROM, and videodisk) has allowed the individualization of instruction and instructional materials, permitted children to learn at their own speed, and been non-threatening and motivating a desire and effectiveness of learning. These characteristics are useful in instruction in English as a second language, in both one-way and two-way bilingual education, for attractive graphics to involve all students, and even to promote parent involvement. These authorities concluded that to maximize the potential of these technologies, administrators and teachers need training in effective educational applications, particularly in the classroom, and appropriate and pedagogically sound materials.

Purpose of the Project

The purpose of this project was to develop a multimedia resource manual to facilitate English language instruction for elementary youth in Taiwan. To accomplish this purpose, a review of current literature and research regarding multimedia technology in English language instruction for EFL/ESL learners was conducted. In addition, unit overviews, objectives of lesson plans, learning activities, teaching strategies, and instructional materials were adapted and developed.

2

Limitations of the Project

For purposes of this project, the following limitations were identified:

1. Research: The preponderance of research and literature reviewed for this project was limited to the past five (5) years.

2. Scope: The multimedia resource manual for instructional technology in English language skills development was designed for elementary teachers to maximize the use of high technology with teaching strategies and interactive activities.

3. Target Population: The multimedia resource manual for English language instruction was designed to serve students in Grades K-6 at a selected elementary level setting in Taiwan.

Definition of Terms

Significant terms used in the context of this project have been defined as follows:

1. Computer Software: Anything that you cannot touch--all of the operations, programs, and files on your computer--is "software." You cannot touch a program, only the disk(s) on which its files reside. Software is much more malleable and easier to modify than hardware.
   (http://www.zdnet.com/yil/content/surfschool/lingo/lingo_h.html#hardware).

2. Computer Hardware: Any part of your computer that is physical, that you can hold or touch, is "hardware." That includes your monitor, your printer, any disk drives, your mouse, and even the chips inside the computer itself.
   (http://www.zdnet.com/yil/content/surfschool/lingo/lingo_h.html#hardware)

3

3. CD-ROM: This term stands for Compact Disk-Read-Only Memory which is the use of compact disks to store information in digital form so it can be assessed by computers (Kearsley, Hunter & Furlong, 1992).

4. Computer-Assisted Instruction (CAI): Often used interchangeably with the term "computer-based instruction," "computer-aided instruction," and "computer-assisted learning." It covers a large number of applications of computers in education. CAI rises from the programmed instruction concepts introduced by Skinner and Crowder and the emerging technology of the computer in the mid 1960's. CAI is a teaching process directly involving the computer in the presentation of instructional materials in an interactive mode to provide and control the individualized learning environment for each individualized student (Yuen, 1989).

5. Educational Technology: A term widely used in the field of education (and other areas), but it is often used with different meanings. The word technology is used by some to mean hardware--the devices that deliver information and serve as tools to accomplish a task--but those working in the field use technology to refer to a systematic process of solving problems by scientific means. Hence, educational technology properly refers to a particular approach to achieving the ends of education. Instructional technology refers to the use of such technological processes specifically for teaching and learning (Ely, 1995).

6. English as a Second Language (ESL): Normally used when referring to the teaching of English, in an English-speaking country, to people whose native language is one other than English.
(http://www.tesol.net/mele.faq.html#whatisesl)

4

7. <u>English as a Foreign Language</u> (EFL): Commonly used when referring to the teaching of English, in a non-English-speaking country, to people whose native language is one other than English.

   (http://www.tesol.net/mele.faq.html#whatisesl)

8. <u>English as a New Language</u> (ENL): Used when referring to the teaching of English, in an English-speaking country, to people whose native language is one other than English and who are usually immigrants.

   (National Board for Professional Teaching Standards, 1996)

9. <u>Instructional Technology</u>: The most recent definition of instructional technology has been published by the Association for Educational Communications and Technology (AECT): Instructional Technology is the theory and practice of design, development, utilization, management, and evaluation of processes and resources for learning (Ely,1995).

10. <u>Interactive</u>: "Interactive" refers to any technology that allows the user to exchange information with a computer program, so that the user and the program "interact." This interaction can be as simple as clicking buttons or typing something in, or as complex as steering a car or navigating a virtual world.

    (http://www.zdnet.com/yil/content/surfschool/lingo/lingo_i.html)

11. <u>Multimedia</u>: Involves the integration of more than one medium into a form of communication. Multimedia such as slide/type presentation, interactive video, and video production have been available for a long time. Most commonly, this term now refers to the integration of media such as text, sound, graphics, animation, video, image, and spatial modeling into a computer system (Von Wodtke, 1993).

12. Network: A network is any connection of two or more computers made for the purpose of sharing resources. These resources could be information, software, or equipment. Networks come in various forms, local-area networks (LANs), wide-area networks (WANs), and other beasts such as intranets, internets, and now extranets.

(http://www.zdnet.com/yil/content/surfschool/lingo/lingo_n.html#network)

13. Video Disk: An optical storage medium that allows multimedia information to be assessed by computers (Kearsley, Hunter & Furlong, 1992).

14. Virtual Reality (VR): VR is a computer-created sensory experience that allows a participant to believe and barely distinguish a "virtual" experience from a real one. VR uses computer graphics, sounds, and images to reproduce electronic versions of real-life situations. Virtual Reality is not a computer, but a technology that uses computerized clothing to synthesize reality (Franchi, 1995).

REVIEW OF RELATED LITERATURE

Introduction

The review of research and literature regarding multimedia English language instruction presented in Chapter 2 has been organized to address the following:

1. The Need for Learning English in Taiwan

2. Language Hierarchy

3. Literacy Development of Language Skills

   a. Knowledge of Literacy Skills

   b. Ways to Develop Language Skills

4. The Role of Multimedia Technology in Early Learning

5. Technology and Language Learning

   a. The Relation Between Technology and Language Learning

   b. Computer-Assisted Language Learning (CALL)

   c. Computer-Assisted Instruction (CAI) in Language Teaching

   d. CALL Software

   e. CALL Software Application

   f. An Innovative Application for Guided Writing through Presentation

   g. The Internet

6. The Need for Multimedia ESL Teaching Methods

   a. Three Learning Styles

The research addressed in Chapter 2 was identified through an Educational Resources Information Center (ERIC) computer search. A hand search of various other sources was also conducted.

The Need for Learning English in Taiwan

According to the research documents provided by Taiwan Department of Education and Office of Educational Resources (1998), we live in a world that is increasingly multicultural. People travel extensively, the media constantly provide news from around the globe, and most countries are made up of a diverse range of ethnic groups. Additionally, in the technology-based information age, the global society changes so rapidly and frequently. Hence, all these facts make language learning an important educational activity. Along with the internationalization of

Taiwan society and its prosperous economy, the importance of English in the modern life is increasingly prominent. The government, the public, and more and more parents have realized that English teaching is necessary and should be included in the formal elementary curriculum to raise the English abilities and skills of citizens.

From 1993 on, only a few elementary schools in Taiwan offered English teaching and learning, which was on condition that schools had standing qualified teachers and adequate facilities. Moreover, it was voluntary, not mandatory, and only forty minutes per week. Yet, in 1996 Education Reform Committee proposed that learning appropriate quantities of English in elementary schools was required (Chinese Times, 1996). Eventually, the Ministry of Education declared in 1997 that English teaching was adopted into elementary curriculum to fit the trend and tendency of society and was about to be enforced for the sixth graders in September, 1999 (Chinese Times, 1997).

The momentous reform of this English education policy is unprecedented. Nevertheless, it has been a common practice for elementary students to learn English from different channels. According to the newest survey, 83% of the sixth graders in Taipei have already learned English for more than six months (Chen, 1996), and 61.9% of elementary students in Taichung have learned or have been learning English (Lu, 1995). From the research we also find out that the majority of students learn it from private language academies.

To be competent enough for the role of an international person in the twenty-first century is to grasp information quickly and possess advanced concepts. All of these are relevant to the accomplished foreign language skills. Accordingly, the future scheme of English teaching and learning in elementary schools in Taiwan is prepared

for and based on cultivating citizens with fluent listening comprehension and speaking skills. The curriculum should be developmentally appropriate and be focused on active, creative, child-centered, open-ended, and discovery learning. This type of curriculum is cited as being the most appropriate learning environment for the developmental stage of the young child. The arrangement of materials and the presentation of instruction should be more real-life, practical, and with more communication. Let children get the opportunity to express themselves for real purposes. Thus, children will get interested and learn the language actively (Office of National Educational Resource, 1998.)

Technology--specifically multimedia technology--can be designed to be a developmentally appropriate and transformational learning environment (Jenkins, 1990). In other words, multimedia can offer a virtual reality which is very helpful and beneficial to children. Especially to Taiwanese students, they have some learning obstacles, i.e., being afraid of making mistakes, short of language environments, and under the suppression of traditional culture (i.e., no interactive learning). All these disadvantages can be overcome in multimedia technology instruction.

Language Hierarchy

According to the National Board for Professional Teaching Standards (1996), among the language hierarchy, only these three types of languages are distinguished here, which are English as a new language (ENL), English as a foreign language (EFL), and English as a second language (ESL). The distinction is depicted as

10

follows:

1. English as a new language (ENL) learners are those who come from other countries to the United States and try to develop proficiency in their new language in mainstream society. The goal of teaching English as a new language is to develop students' proficiency in English; to provide students with access to important subject matter and advance their understanding of such subject matter; and to assist students in becoming part of the fabric of the school and responsible citizens of a democracy. Language and culture are interrelated. To develop proficiency in English is to understand its cultural background. However, students are facing a huge challenge: some values, beliefs, and understandings of students' home culture must conflict with those of the school and society. Therefore, the teacher's role is like a conduit to reach a good communication so as to diminish friction and discrimination and respect cultural differences. Accomplished teachers of ENL learners effectively help ENL students strive to master a new language and succeed in school.

2. English as a foreign language (EFL) is used when referring to the teaching of English, in a non-English-speaking country, to people whose native language is one other than English (http://www.tesol.net/mele.faq.html#whatisesl). An EFL teacher specializes in teaching English to non-native speakers. Clearly the way the English language is taught to a native speaker is different from the way in which it is taught to a non-native speaker. (http://www.u-net.com/eflweb/tefl7.htm). Basically EFL is the same as ESL; however, there are some differences. First of all, EFL learners have the same linguistic and cultural background and classes are taught in both English and the students' native language, or English-only, or, in some places, entirely in the native language of the students. While ESL students have different linguistic and cultural

11

backgrounds and classes are taught exclusively in English. Secondly, EFL teachers

may be either non-native English speakers or native speakers of English, and students

study it at school, or for work purposes or for exams. ESL teachers are not necessary

to be native speakers of English. Foreign language background is not really important

to them; however, they seem to have the obligation to dealing with cultural issues.

The major reason for people to learn English is to survive in a new country.

    3. English as a second language (ESL) is normally used when referring to the

teaching of English, in an English-speaking country, to people whose native language

is one other than English. (http://www.tesol.net/mele.faq.html#whatisesl). Therefore,

ESL programs accommodate students from different language backgrounds in the

same class, and teachers do not need to be proficient in the home language(s) of their

students. There are two ESL program models. 1) ESL pull-out is generally used in

elementary school settings. Students spend part of the school day in a mainstream

classroom, but are pulled out for a portion of each day to receive instruction in

English as a second language. 2) The ESL resource center is a variation of the pull-

out design, bringing students together from several classrooms or schools. The

resource center concentrates ESL materials and staff in one location and is usually

staffed by at least one full-time ESL teacher.

(http://www.cal.org/ericcll/digest/rennie01.html)

Literacy Development of Language Skills

Knowledge of Literacy Skills

According to National Board for Professional Teaching Standards (1996, p.49), the important themes, ideas, concepts and strategies are central to learn how to read, write, speak and listen both in a student's first language (L1) and in a student's second language (L2). Reading, writing, speaking and listening are language arts or literacy skills. The role of the native language in developing literacy in a student's second language is very crucial and teachers should capitalize on a student's proficiency in L1 in developing those skills.

The recent theory for the nature of literacy and the impact of developing literacy via L1 vs. L2 is that reading, writing, speaking and listening are interrelated and mutually reinforcing. In particular, children benefit from a variety of experiences with reading, writing and oral language in both L1 and L2. Longman Dictionary of Applied Linguistics defines literacy as "the ability to read and write in a language" (Richards, 1985, p.216). More specifically, using reading and writing skills sufficiently well for the purposes and activities is required in adult life or in a person's social position. In other words, these two skills are functional literacy (Gousseva, 1998).

The creation of a literacy-rich environment builds upon the previous linguistic experience of the students and the instruction takes advantage of students' prior literacy experiences. The development of literacy involves development of reading and writing as conjoined activities with shared cognitive processes that shape each

other (Gousseva, 1998). Fitzgerald (1989) argued that reading and writing are "highly related and draw on similar thought processes" (P.42). The processes are based on reciprocal and interdependent relationship. Language is best learned when meaningful messages are exchanged. In addition, the social interaction in developing language and literacy skills is also important. Many literacy skills transfer from one language to another. Therefore, the literacy capacity should be sufficiently made use of for language development.

Ways to Develop Language Skills

Speaking Ability:

Listening and speaking are the original modes of language acquisition. Oral language is the primary vehicle for communication with others. According to National Board for Professional Teaching Standards (NBPTS) (1996), development in oral language is the preparation for development in written language. Hence, teachers provide abundant opportunities for students to learn and express a point of view through challenging and productive uses of speech (p.86). Teachers are articulate and sensitive speakers and listeners. Their excellent oral language skills of leadership in the classroom are demonstrated to students, which provides many opportunities for students to practice and develop listening and speaking skills, in the ways of whole class, small group and paired settings. The opportunities and activities are as follows:

1. having students give their opinions about books they have encountered

2. role-playing or reenacting stories

3. paraphrasing what they have read in their own words

4.   improvising a new ending to a familiar plot

Reading Ability :

Reading is recognized as a preparation for success in school and work. It also helps foster more thoughtful, humane and responsible adults. Reading builds on and extends oral language skills, which develop a rich oral vocabulary, foster the communication ability, and promote the understanding of complex thoughts through spoken language. According to NBPTS (1996), story is an illustration of life itself, with all the possibilities for intellectual, social and emotional growth that implies (p.87). Additionally, literature can spark students' imaginations and engage them in exploring the moral and ethical dimensions of their existences. Reading is the process of making meaning from print, and the process is transactional. Consequently, teachers should support their students' development in reading. The ways are described as follows:

1.   Model teachers' reading process, talk with the students about the reading.

2.   Involve students in reading in school and on their own, such as silent reading, a classroom library with stories, reference books, magazines and other materials.

3.   Help students discover and articulate for themselves what a given text means.

4.   Flexibly use three language systems--the semantic (meanings), the syntactic (sentence patterns), the graphophonic (sound and letter patterns)--to successful reading.

15

5. Encourage students to speak candidly about their responses to the text and the connections to their lives.

6. Practice re-telling the story to the whole class or small groups.

7. Expand reading through activities to have students express their own opinions and views, practice problem-solving and analyzing the content.

Writing Ability:

According to Gousseva (1998), the processes of reading and writing are closely linked and interdependent. In addition, " the processes used to read and write effctively are similar...the skills used by good readers can be transferred to their writing projects" (Kauffmann, 1996, p.398). Reading and writing can work together as "tools for information storage and retrieval, discovery and logical thought, communication, and self-indulgence" (Tierney and Leys, 1986, p.26).

To higher-level students, a powerful learning tool incorporating reading and writing practice is peer reviews. Peer reviews are the effective way to help the students "develop confidence in their ability to learn from one another and for themselves" (Gillam, 1990, p.99). Yet, teachers should be aware of the student interaction to improve the quality of writing and develop the students' skills as critical readers and independent thinkers. Below are the ways to develop the writing ability:

1. Create frequently opportunities for students to write informally and formally, such as daily journals, personal notes, class newsletters, and so on.

2. Involve students in choosing their own topics and purposes for writing.

16

3. Have students take turns reading their favorite compositions to the whole class.

4. Give constructive feedback from the whole class or small groups to make helpful suggestions about how to improve their writing.

5. Use brainstorming ideas and write from an outline.

6. Use multiple drafts and share with classmates for peer reviews to motivate students to revise and improve their writing.

The Role of Multimedia Technology in Early Learning

Jenkins (1990) explained that technology has developmental stages. When computer technology becomes more powerful and sophisticated, it is developed to a new form called computer-controlled multimedia, which integrates text, audio, and video with a computer. Multimedia becomes a "technology-based medium for thinking, learning, and communication" (Ambron,1988). Because of young children's multisensory learning, multimedia technology and early learning exist compatibly.

According to Hooper (1988), multimedia technology stimulates the young child to have active involvement and enhance learning. Gardner (1983) stresses different types of intelligence, which are logical, mathematical, linguistic, bodily-kinesthetic, musical, spatial, and interpersonal. According to Gardner's theory, the types of intelligence are autonomous but can combine in a multiplicity of ways. Because multimedia technology incorporates a variety of media, it can stimulate each of the

intelligence.

Sternberg (1988) conceptualizes the triarchic mind as consisting of three components: metacomponents (such as planning, monitoring, and evaluation phenomena), performance components (lower-order processes necessary to carry out the metacomponents' demands), and knowledge-acquisition components (for learning how to solve problems) (Jenkins, 1990, p.116). These components are highly interactive and carry out three primary functions within the environment: selection, adaptation, and shaping. We could use these theories to build a conceptual framework to understand the influence of multimedia technology on young children's thinking and learning.

Jenkins (1990) identified the following attributes of multimedia:

1. Multimedia can extend the sensory content of the early learning environment through sound, music, video, animation and graphics.

2. Multimedia can provide multiple, multisensory learning contexts.

3. Multimedia offers a safe environment for risk taking, experimentation, exploration, and problem solving.

In essence, multimedia exposes the young child to multiple content and contexts, and stimulates a variety of cognitive processes. There is a positive correlation between multimedia environments and the multisensory learning of the young child.

The Relation Between Technology

and Language Learning

Sheingold (1990) explained that technology is viewed as a means of supporting goals related to increased student involvement with complex, authentic tasks and new organizational structures within classrooms and schools. Mielke and Flores (1994) stated that technology is a significant source to aid schools in achieving instructional strategies which are meaningful, active, and sensory, connected to the real world, in which students are able to construct meaning from their learning and apply it to their lives. With educational technology becoming available, teachers have new tools to enhance learning. The growing proliferation of technological tools makes possible an equal chance for all children to experience success in learning, especially children who are Limited English Proficient (LEP) or Limited English Speaking Abilities (LESA).

The primary motivation for using technology in education is the belief that technology will support superior forms of learning. Advanced skills of comprehension, reasoning, composition, and experimentation are acquired not through the transmission of facts but through the learner's interaction with content. It is this constructivist view of learning that affects the ideas for curriculum and instruction through technology. And we have learned that technology produces unexpected benefits for students and teachers (Stearns et al, 1991).

Presently there are various software programs developed specifically for the

19

language minority students--bilingual students. The computer-assisted language learning (CALL) provides extra time, patience, interactivity, and feedback, which lead to more expedient and efficient learning. In particular, there is recent technological innovation in auditory skill development. Auditory development is the basis for learning to speak a second language (Mielke and Flores, 1994, p.7). It is superior to learn a language via Compact Disk Read Only Memory (CD ROM) players with their high-quality audio and storage capabilities.

Bonnie Botel-Sheppard, director of the Penn Literacy Network at the Graduate School of Education of the University of Pennsylvania, says that the best use of technology is when it accompanies a rich and literate environment in which students are reading and writing (Media & Methods, Sep.1997, p.16). Computer-assisted instruction (CAI) is being seen as quite motivational to students. Using a motivational reading software program makes students active rather than passive readers, and forces them to think about what they have read. Becker (1992) stated "motivation is key to learning, and perhaps the teacher's most critical job is to see that students are motivated to work on instructional tasks until they can accomplish the objectives he or she has set." (p.9)

Computer-Assisted Language Learning (CALL)

With the advent of multimedia computing and the Internet, the role of computers in language instruction is becoming more and more important and popular. One of the uses of computers in the language classroom is computer-assisted language learning (CALL). According to Warschauer and Healey (1998), the development of technology has three stages: behavioristic CALL, communicative CALL, and

20

integrative CALL.

The features of behavioristic CALL are repetitive language drills, referred to as drill-and-practice. The computer is viewed as a mechanical tutor and students can learn at an individual pace. The emphasis of communicative CALL is placed on "using" computer-based activities, generating original utterances, and employing the target language predominantly. Communicative CALL is based on cognitive theories "which stress that learning is a process of discovery, expression, and development" (Warschauer and Healey, 1998). Afterwards, a cognitive view of communicative teaching is changed to a more social or socio-cognitive view, which is integrative CALL. The approaches are based on tasks, projects, and contents, integrating learners in authentic environments, various skills of language learning and use (e.g., listening, speaking, reading, and writing), and a variety of technological tools into the language learning process.

Warschauer and Healey (1998) stated that "the multimedia networked computer is the technology of integrative CALL." The integrated uses of technology and learning to read, write, and communicate via computer have become an imperative and essential feature of modern life in the developed world. The global information-based economies increase the demand of dealing with communicating across languages and cultures. Effective search strategies are more important. Accordingly, teacher roles and students' learning purposes have to change with the times of global interconnectedness. Dole, et al (1991) explained that the teacher has become a facilitator of learning, not just pouring information into the heads of waiting students, and that students actively interpret and organize the information they are given, fitting it into prior knowledge or revising prior knowledge. All these changes are new trends

21

to meet diverse needs in the twenty-first century. In effect, current uses of computers in the language classroom are related to all three stages of CALL mentioned above. We can see the correspondence from the use of stand-alone CALL software programs and the use of the Internet in language learning and teaching.

Computer-Assisted Instruction (CAI)
in Language Teaching

According to research conducted by Kitao (1996), computers can be used for English language teaching in many aspects, such as preparing for classes, writing teaching materials and tests with a word processor, using resources on the computer (i.e., dictionaries and encyclopedias), acquiring teaching materials and new ideas or suggestions from computer networks, and administering classes for assignments, grades, and evaluation. Using CAI is more effective in the aspect of presenting pictures, videos, and written text with or without sound. In addition, it is easier to handle a computer than the other media. Furthermore, students can work individually with a computer, which provides materials for students to interact with it. In other words, students use computers as a library and a tutor to work on drills, tutorials, games, and simulations. All the work can be done in pairs or in groups, and students can work at their own pace. CAI can make slower learners catch up and advanced learners do extra assignments.

Using computer-assisted instruction makes students study actively and forces them to think and learn from the assistance of a computer. CAI is a more interesting way for learning and students are not so easy to get bored. Moreover, "students can process more materials with a computer than with a textbook in the same amount of

time." (Kitao, 1996) All of the above are the benefits of CAI.

CALL Software

According to Warschauer and Healey (1998), this type of software has some

characteristics in its content, which are: providing realistic and native-speaker models

of the language, offering a language learning curriculum, doing a needs assessment,

determining the best next step for the learner with skills practice, and recording what

the student has done , along with an evaluation. Teachers should place more

emphasis on the quality of the curriculum and its appropriateness for the target

learners, not just distinct elements for practice. For example, Jostens' *English*

Language Development and Hartley's *Project Star* are made for a North American

English as s Second Language audience. CALI's *Ellis* and DynEd's *Dynamic English*

are produced more toward an English as a Foreign Language setting. There are many

benefits of adding a computer component to language instruction. They are stated as

follows:

- multimodal practice with feedback

- individualization in a large class

- pair and small group work on projects collaboratively

- the fun factor

- various resources available and learning styles used

- exploratory learning with language data

- real-life skill-building in computer use

Due to the benefits of the growth of multimedia, Warschauer and Healey (1998)

depicted grammar practice is no longer the main goal of computer use in the language

23

classroom. Still, there are a great many grammar and vocabulary drill programs. Yet, the vocabulary programs have been contextualized and incorporate graphics, audio recording and playback, and video. In language learning, drills are necessary and important to vocabulary acquisition, that can enhance the learner's recognition and recall. English pronunciation programs incorporate voice recording and playback so that students can compare their recording with a model, e.g., CALI's *Ellis Master Pronunciation*. Even multimedia vocabulary programs have this trait of speech recognition technology, such as *Practice Makes Perfect* and *Vocabulary Builder* from The Learning Company, *See It, Hear It, Say It!* from Courseware Publishing International. Comprehensive reference works such as *TriplePlay Plus!* have interactive games and conversations to teach words and basic phrases, using speech recognition technology for recording and comparing with a model. CD-ROM programs such as *Nouvelles Dimensions* and *Nuevas Dimensiones* use multimedia to provide visual context and textual reference materials for listening comprehension techniques.

Mostly, games are added in drills to motivate language learning. The language learning software with the drill-as-game is designed for collaborative work. Notable examples of this type of program in a multimedia version are the *Carmen Sandiego* series from Broderbund and *Who Is Oscar Lake?* from Gessler. Games also offer students an opportunity to use language and culture skills to solve a problem or reach a goal. In the adventure program, *A la Rencontre de Philippe,* "students watch video segments of the adventure and make choices that determine the outcome, using a Paris map, notebook, apartment guide, telephone, newspaper, and answering machine in their quest" (Ledgerwood, 1996).

CALL Software Application

The most effective way for computer-assisted language learning (CALL) is to use language for real purposes, particularly in the field of reading and writing. "Purposeful activities help bridge the gap between the artificial classroom setting and the real world" (Schcolnik & Kol, 1999). After possessing the basic literacy skills, even students at a lower level of EFL/ESL can try to make use of Microsoft PowerPoint to enhance language learning. PowerPoint is a presentation tool which can be used in an innovative skill integration task to activate reading, writing, speaking and listening. The tool is easy to learn and use. According to Schcolnik & Kol (1999), the activation of all four language skills is described below:

(1) Reading--First, have students read an article or story suitable to their level and tell them to present it in class. Teachers can instruct them how to gather the main ideas of the article or story. This purpose of transmitting information for reading helps students express those ideas understood by others.

(2) Writing--To present the main points on the slides, students can learn how to condense the ideas and how to organize a suitable sequence for the points. Thus, students will be forced to re-read, re-evaluate and re-write what they have written again and again.

(3) Speaking--Students have to present orally what they have read, organized and summarized to an audience of peers. Students have to rehearse the whole presentation or the pronunciation of difficult words and time themselves. Computer presentations expose students to the content of their 'talk', help them remember what they want to say, and give them more self-confidence to

25

minimize their tension and feeling of insecurity when speaking in English.

(4) Listening--It is not easy to listen to a non-native speaker's oral presentation. So visual elements facilitate the peer's comprehension in the whole class. We require the listeners to write down a few facts they learn from the presentation. Because there is a purpose for listening, students all focus on the listening and the effect will be reached.

An Innovative Application for Guided Writing

Through Presentation Software

According to Murphy-Judy's explication (1997), "the readers whom foreign language education produces now…should not be trained in defunct literacy practices, but rather should be prepared to function in this new world. Literacy, today, is increasingly electronic and telecommunicational." In today's global village, English is the language of international communication and the written communication with other countries by the use of electronic means is increasing and strengthens the needs for writing skills. Therefore, "writing skills in English should be fostered in EFL classroom" (Schcolnik & Kol, 1999).

In Schcolnik & Kol's (1999) study case, it has proven to be very positive to implement PowerPoint for writing in reading courses. Zamel (1992) explained that "reading provides 'comprehensible input' for writing, and writing can contribute comprehensible input for reading". Grabe & Kaplan (1996) also mentioned that writing is taught as a means to interact with the material and with other students. When one writes about what he or she reads, it is necessary to interact with the written text. Zamel (1992) claimed that writing is a means for understanding the text,

26

and Hansen (1987) said that writing is "the foundation of reading" and the "most basic way to learn about reading." However, we can make sure that reading and writing are interdependent and "these two language processes cannot be separated" (Zamel, 1992).

The use of PowerPoint for guided writing is referred to as an activity to improve writing skills in the lower levels. The writing process through a word processor or presentation software constitutes a "continuous spiral" (Phinney, 1996) of writing, revising and editing. No matter which one is used, a spelling checker--a powerful ESL writing tool, is available and helpful to foreign language learners.

There are some characteristics of PowerPoint more suitable for writing at the lower levels of EFL than a word processor. First, the environment is friendly, attractive and contained, which does not threaten students to use the program. Students can print out two or three sentences on one slide with a frame, background decoration, or an illustrative picture. The printed page looks like a finished product and can boost the beginning writer's self-confidence. Phinney (1996) pointed out that writing is both a social and a personal process. Through the use of PowerPoint presentation, "the student functions as a 'doer and creator'" (Schcolnik & Kol, 1999). The students work actively and pleasantly and they can get human reactions (feedback) from their peers and teacher instead of from "machine reactions."

The Internet

The rise of computer-mediated communication and the Internet reshapes the uses of computers for language learning at the end of the 20th century. The developed world has moved from the industrial age to the information age; economic activity

27

and growth is based on the exchange and interpretation of information and development of knowledge. According to Warschauer & Healey (1998), "the ability to read, write, and communicate effectively over computer networks will be essential for success in almost every sphere of life." Therefore, the major role of the language classroom in the informational technology world is to prepare students to function in the networked global society.

There are a number of applications used to enrich the foreign language classroom. The most commonly used Internet application is E-mail, which can be used in writing class and allow the student to write to English speakers from other cultures. It will be a vital communication tool in the 21st century (Liao, 1999) and also can improve EFL learners' reading and writing abilities.

Warschauer & Whittaker (1997) concluded the following guidelines designed for teachers to implement computer-based activities into the second language classroom.

(1). Consider your goals carefully.

The rationale of using the Internet in language teaching is that the linguistic nature of online communication can promote language learning. "Electronic discourse is more lexically and syntactically complex than oral discourse" (Warschauer, 1996a) and "features a broad range of linguistic functions beneficial for language learning" (Chun, 1994; Kern, 1995). In addition, it provides an authentic audience for written communication and increases students' motivation (Warschauer, 1996c). Moreover, learning computer skills is not only to use the Internet to learn English but also to function well on the Internet, which is essential to students' future success.

28

(2) Think integration.

It is not enough for most teachers to use computer pen pal exchanges. Teachers should be more engaged in creating learning activities with sufficient linguistic and cognitive demands on the student. Internet activities can be integrated into the design and goals of a course by creating research questions in collaboration with foreign partners. Exchange partners can also be used as experts to supply information on vocabulary, grammar, or cultural points emerging in the class.

(3) Don't underestimate the complexity.

Although teachers are skilled at English and have some basic computer literacy, they should take into consideration that ESL students may lack the basic prerequisites, such as the lack of vocabulary, reading, and listening skills to follow instructions for using the computer. In exchanges between classes, the complexity is: how to deal with the complications of absent students in the partner class, the partner teacher who might not have the same understanding of the nature of the exchange, and the students' differences in background, language and experience.

(4) Provide necessary support.

Sufficient support can prevent students from being overwhelmed by difficulties. This kind of support can be: offering detailed handouts that students can refer to independently, building technology training sessions into the class schedule, assigning students to work in pairs or groups for each other's assistance.

(5) Involve students in decisions.

When considering network-based teaching, teachers should have the
concept of a learner-centered curriculum (Nunan, 1987). So they have to
consult with students and involve them in expressing their opinions about
the process of implementing technologies.

The Need for Multimedia Language Teaching Methods

According to Hinkelman and Pysock (1992), one difficult task for an ESL
teacher is how to select productive teaching methods. Appropriate teaching methods
can be applied to facilitate learning. However, learning styles play an important role
in language education. A specific technical meaning of "learning style" is the innate
preference a person has for the way he or she receives information in a learning
situation. Dunn et al (1989) defined it as "...a biologically and developmentally
imposed set of personal characteristics that make the same teaching method effective
for some and ineffective for others." (p.16) Psychologically, the term "learning style"
is identical to "cognitive style."

One learning style model called the Modality Model or VAK Model analyzes
and compares four different teaching methods--a visually-oriented method (V), an
auditorily-oriented method (A), a kinesthetically-oriented method (K), and a method
which combines all three modalities. Barbe and Swassing (1979) defined modality as
"...any of the sensory channels through which an individual receives and retains
information. Sensation, perception and memory constitute what we are calling

30

modality" (p.1). Children need visual, auditory, and tactile involvement in learning. These three learning styles are within the modality model and will be described below.

Three Learning Styles

Hinkelman and Pysock (1992) described three learning styles for teaching English as a second language. The first learning style is visual (V). This type is learning by seeing. The learners love pictures, illustrations, diagrams, and charts to help them understand and remember information. In the language classroom, their reading and writing abilities may be very strong. A language lesson emphasizing the visual modality might consist of watching a video and extensive use of blackboard writing or pictures (Hinkelman and Pysock, 1992, p.27). The second style--learning by hearing, is auditory (A). It is easier for the learners to use their ears to understand new concepts and acquire new skills. Their study habit is to vocalize the words or the passage aloud to implant the sounds in their minds. In the language class, auditory learners are excellent in pronunciation and listening exercises. A lesson emphasizing the auditory modality would consist of listening to audio tapes or writing dictation. The third one, learning by doing, is kinesthetic (K). The learners love to do something physical during the learning process in order to understand and remember. So the ideal ways to engage them in learning a foreign language is dialogues. A lesson emphasizing the kinesthetic modality would consist of doing an active role play.

From the above description, we realize that there is defect to individual language learner. According to Hinkelman and Pysock (1992), further research shows that

successful language learners are able to function in more than one modality. As we know, many schools still use a lecture-style approach to language teaching which is only in favor of the auditory-type learners (p.32). Therefore, we need the fourth method, a multi-modal, multimedia approach. Only in a multimedia language class all learners have an equal opportunity to learn through the learning procedure of "tell-show-do."

Language and Culture through Multimedia

Kramsch and Andersen (1999) point out that it is a challenge for language learners and teachers to use multimedia technology to teach language in its authentic cultural context. That is, learners have access to authentic cultural materials that can help them understand the sociocultural context in which the language is used. American Council on the Teaching of Foreign Languages (ACTFL) (1996) states that "access to a variety of technologies ranging from computer-assisted instruction to interactive video, CD-ROM, the Internet, electronic mail, and the World Wide Web, will help students strengthen their linguistic skills...and learn about contemporary culture and everyday life in the target country." (p.31)

Generally, the computer can offer immediate access to the way native speakers use their language in real everyday situations. (Kramsch and Andersen, 1999, p.31) It also can develop the sociocultural competence of language learners. In effect, computers bring the language and culture authentically and closely to students in the classroom (Crook, 1996). In other words, language is affiliated with "verbal and paraverbal behaviors, an acoustic and visual context that is indissociable from the larger societal context in which the words are uttered." Similarly, "culture is

32

produced and reproduced under our very eyes, on the screen, through what people say

and how they say it. In multimedia, culture is inscribed in language use." That is

"language-in-culture and culture-in-language." (Kramsch and Andersen,1999, p.31)

Evaluation of Language Software

Multimedia technology has made foreign language education more exciting.

Not only do teachers need to have basic knowledge of multimedia, but they also have

to know how to evaluate software and how to implement it into the curriculum.

According to Chang (1998), the following are what teachers should understand when

reviewing foreign language multimedia material:

1. Who are the target students and is the software appropriate for them?

2. Is the software stand-alone or networked?

3. Does it have clear English instructions?

4. Does the software provide authentic cultural input?

5. Are activities meaningful and do they have clear objectives?

6. What specific language skill does the software focus on?

7. What is the targeted content of the software?

8. Is it possible and affordable for future upgrades?

Educational Technologies

According to the research documents provided by U.S. Deportment of Education

and Office of Educational Research and Improvement (1993), educational

technologies are complex combinations of hardware and software, such as audio channels, computer code, data, graphics, video, or text. No matter what kind of equipment is employed, the nature of the instruction delivered is more important. Educational technologies are categorized into four basic uses: tutorial, exploratory, application, and communication. First, the definitions of these four uses are described as follows:

1. Tutorial uses--in a lecture-like format in which the technology does the teaching. The system controls the student's learning. Tutorial uses include (1) expository learning--the provision of information; (2) demonstration--the display of a phenomenon; and (3) practice--the procedure of solving problems and answering questions.

2. Exploratory uses--designed to facilitate students learning by providing information, demonstrations or simulations. The system is under the student's control and provides the context for discovery of facts, concepts, or procedures.

3. Application uses--provide students with tools to facilitate writing tasks, analysis of data, such as word processors, spreadsheets, database management programs, graphing software, desktop publishing systems, videotape recording and editing equipment.

4. Communication uses--students and teachers can send and receive messages and information to one another through networks or other technologies.

Technologies for Tutorial and Exploratory Learning

Tutorial uses of educational technology support the teaching-learning model, which transmits information to students. The technology in the field of tutorial learning is computer-based technology. Computer-based technology is employed for computer-assisted instruction (CAI), which was developed by Patrick Suppes at Stanford University during the 1960s. CAI can be delivered through an integrated learning system or as stand-alone software. In CAI software there are text and multiple-choice questions for students. It "offers immediate feedback, notes incorrect responses summarizes students' performance, and generates exercises for worksheets and tests" (Means, Blando, Olson, and Middleton, 1993). This is the most common form of CAI called drill-and- practice program. Integrated learning systems (ILSs) incorporate hardware and software to set up a computer lab. The systems are "networked CAI systems, managing individualized instruction in core curriculum areas" (Means et al, 1993.)

Tutorial CAI is a one-way (computer to student) transmission of knowledge and similar to that in the traditional classroom. Tutorial learning is not a constructivist model of instruction. The student is passive to learn the information. CAI provides extensive drill and practice in basic skills. To those who are seen as lacking in basic skills, CAI drill-and-practice instruction becomes logically suitable. Some studies indicated that CAI appeared to work more effectively for slower, disadvantaged, and below grade level students (Thompson, 1990).

According to Means et al(1993), exploratory uses of instructional technology mean that students learn facts, concepts, and procedures, through the process of discovery or guided discovery. In other words, the student may access, discover, and

construct knowledge through a self-directed learning process. There are three types

of technology used for exploratory learning: (1) computer-based information retrieval

systems, (2) microworlds, and (3) interactive video. Electronic databases can not only

serve as information retrieval systems but also make students capable of organizing

and manipulating data they have accessed or entered. Microcomputer-based

laboratories connect a computer and the environment; students can explore real-life

and real-time phenomena. The exploratory applications with complex and authentic

tasks have active problem solving and collaborative learning activities.

Technology as Applications and Communication

Word processing applications are the most frequently used computer-based tools

and will assist students to revise and edit their own work in their compositions. The

word processing software does not just focus on the mechanics of spelling and

punctuation; it also supports higher-order thinking by means of ideas and ways of

communication. In addition, it provides students with a flexible tool for creating

polished documents. This computer-supported writing is tremendously motivating for

students and develops their writing skills. "Word processors incorporating speech

synthesis 'read back' what the student has written, allowing beginning writers to

explore the relationship between sounds and written symbols (Borg 1985).

Another application is use of hypermedia for (1) exploring a large database of

information, (2) accessing elaborations on core information, or (3) building a database

(Duffy & Knuth 1989). The most widely hypermedia system is HyperCard.

HyperCard stacks can contain still and animated graphics, text, and sound for

database management, demonstrations, and instruction. Students are invited to enter

and manipulate information or link it to other nodes. Hypermedia encourages students to act as researchers and to figure out how to organize their research. Interactive communication technology allows students or teachers to send and receive written, vocal, or visual information. Computer networking encourages collaboration and active participation on the part of learners. Learning from computer networking is no constraint of geographic location and time so that students or teachers can take time in reviewing information presented on the network, enhance thinking, composition skills and more thoughtful response, and lessen barriers resulted from differences in age and cultural group.

Integration of Computer Technology into Language Learning

According to Warschauer and Healey (1998), computers in language teaching play a significant role. Due to technological and pedagogical developments, it is more helpful and effective for teachers to integrate computer technology into the language learning process. Teaching language in isolation easily makes students bored; moreover, language learning results from using language to perform authentic communicative functions. We know that language, cognition, and social awareness develop concurrently in young children. Multimedia integrated and interactive instruction aids to keep the components of development together through a variety of software programs.

The most effective way to acquire proficiency in the target language is to use it for communication in meaningful social situations. Internet technologies provide a purposeful, motivating, and authentic context for learning the communicative functions of the new language. Electronic mail is the most common one--integrating

37

email-based activities into language teaching/learning process (LeLoup, 1997). The delivery of authentic context and materials through computer technology is in the form of text, images, sound recordings, video clips, and even virtual reality worlds. This can allow the student to work in interesting ways.

Trends of Computer-Assisted Instruction in Teaching English as a Second/Foreign Language (TESOL)

The content analysis of the trends in the field of teaching English as a second/foreign language (TESOL) through computer-assisted instruction was conducted by Kenji Kitao, 1996. According to Kitao (1996), the trends are explained as follows.

TREND 1: Many teachers have developed software which put more emphasis on games, simulations, and productive language skills, speaking and writing.

TREND 2: Many programs are related to conversation and involve listening, speaking, recording, comparing voices, and reading and writing along with listening and speaking.

TREND 3: Multimedia software is the core of educational software.

TREND 4: Multimedia software, hard disks, and CD-ROM are getting more common, more popular, and less expensive.

TREND 5: Lots of multimedia software is used for education, particularly for TESOL education.

TREND 6: Multimedia computer-assisted instruction is depending more on the use of networks than on stand-alone computers.

TREND 7: More teachers in CAI are on line and use E-mail for exchanging information.

Summary

The research and literature summarized in Chapter 2 supported the following themes:

1. Educational environment in Taiwan was influenced by the need and trend of language learning in a multicultural world, in particular, the globally technology-based information age. The Ministry of Education decided to implement the English teaching ahead of schedule in elementary schools.

2. There is a little distinction among the language hierarchy: English as a new language (ENL), English as a foreign language (EFL), and English as a second language (ESL). Yet, students' deficiency in English is in common and the goals of these three are to develop English language skills for different reasons.

3. A student's proficiency in his or her native language (L1) should be capitalized on literacy development of the second language (L2) skills because those skills of reading, writing, speaking, and listening in L1 and L2 are interrelated and mutually reinforcing.

4. Because of young children's multisensory learning, multimedia technology can stimulate children's different types of intelligence and active involvement in learning.

5. In addition to supporting advanced skills of comprehension, reasoning, composition, and experimentation through a quite motivational instruction— computer-assisted instruction (CAI), educational technology can prepare students to function in the networked global society by means of the Internet. The most popular use of computers in the language classroom is computer-assisted language learning (CALL), which places emphasis on a mechanical tutoring, a communicative vehicle, and an integrative approach to authentic learning environment with a more social or socio-cognitive view.

6. The experiment of the Modality Modal or VAK Modal concludes that successful language learners are able to function better in a multi-modal, multimedia approach. The concept that language is authentically and closely affiliated with culture in multimedia technology helps teachers facilitate language learning and teaching.

7. Computer technology integrated into the language learning process is employed for tutorial, exploratory, application, and communication uses.

8. Computer-assisted instruction (CAI) is a more suitable and popular way to teach English as a second/foreign language (TESOL), from which ESL/EFL teachers can gain most benefits and effects in teaching English.

CHAPTER 3

Procedures of the Project

The purpose of this project was to develop a multimedia resource manual to

facilitate English language instruction for elementary youth in Taiwan. To

accomplish this purpose, a review of current research and literature regarding

multimedia technology in English Language Instruction for EFL/ESL learners was

conducted. In addition, unit overviews, objectives of lesson plans, learning activities,

teaching strategies, and instructional materials were adapted and developed.

Chapter 3 contains background information describing:

1. Need for the Project

2. Procedures

3. Planned Implementation and Assessment of the Project

Need for the Project

The need for this project was influenced by the following considerations:

1. The writer, Mei-wen Su, a former certified English teacher, had

   seventeen years experience in teaching English in Taiwanese junior

   high schools. During her years of teaching, the writer had become

   accustomed to a more traditional, teacher-directed learning

   environment, student learning styles, and instructional strategies.

Recognizing the rapid change of an information-rich society and the advent of advanced technology, the writer thought that the education in Taiwan had to change and be adjusted to fit the trend of modern education in the world.

2. After immigrating to Vancouver, B.C., the writer worked as a realtor for two years. Yet, frequent contact with the schools of the writer's children and the finding of the advance of technology in North America increased the writer's interest in, and motivation for, understanding the English language instruction through educational technology.

3. After enrolling in a course in educational technology at Central Washington University, the writer was astounded at the function, application, and benefits of multimedia technology used in teaching English as a foreign or second language. The practice and exploration of multimedia technology during the stay of Central Washington University was a big impact for the writer to have the idea and ambition of setting up a private English language academy in Taiwan.

4. In today's economically global village, English language skills are essential for communication. That results in a new and prevailing trend of learning English as early as possible to meet the need of competitive global marketplace. In effect, Taiwan has a powerful economy and its government just realizes the imminence of teaching English in elementary schools.

5. As a former English teacher, the writer deeply knew the obstacle to students learning English and difficulty of teaching environment.

42

Therefore, the writer tried a pilot project to contribute new knowledge of English learning and teaching strategies in this field acquired from Central Washington University and put a new face on English teaching/learning through multimedia technology.

6. Undertaking the project coincided with the writer's graduate studies in educational administration at Central Washington University.

Procedures

Resource information for multimedia technology and English language learning/teaching was acquired from ERIC (Educational Resources Information Center), Internet computer search, and a hand search. In addition, selected materials were obtained from the following sources:

(1) Intensive American Language Center. Washington State University, Pullman, Washington.

(2). The Graduate School of Language and Educational Linguistic, Center for Language in Education & Work. Monterey, California.

(3). WAESOL (Washington Association for the Education of Speakers of Other Languages), Tacoma, Washington.

Planned Implementation and Assessment of the Project

The resource manual to facilitate English Language development for elementary youth has been tentatively designed for use of a private academy setting in Taiwan, which will be founded and managed by the writer during the 2000-2001 school year. Following inauguration of the new school program, the writer will work in collaboration with teaching faculty to plan and design performance-based assessment procedures needed to determine program success and to gather information needed to evaluate individual student language skill development. Regular questionnaire surveys will be conducted to obtain teacher and student recommendations concerning curriculum and instruction, which will be considered and used by instructional staff to modify program content, teaching strategies, use of selected multimedia materials, etc.
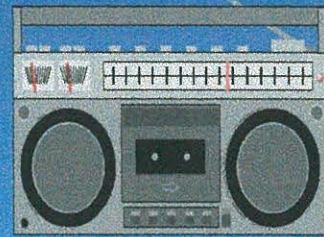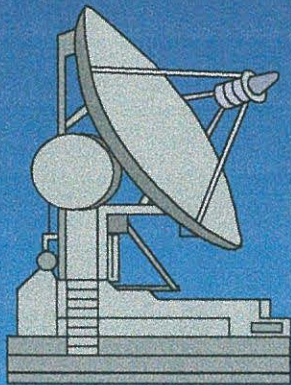
CHAPTER 4

THE PROJECT

The model multimedia resource manual to facilitate English language instruction

for elementary youth in Taiwan, which was the subject of this project, has been

presented in seven (7) units in Chapter 4, including:

Unit 1:   Introduction

Unit 2:   English Literacy

Unit 3:   Vocabulary Building

Unit 4:   Listening & Speaking Development

Unit 5:   Reading Development

Unit 6:   Writing Development

Unit 7:   Keyboarding

A Multimedia English Instruction Program

Mei-wen Su

Central Washing University

A Multimedia Resource Manual to Facilitate

English Language Instruction for

Elementary Youth in Taiwan

By

Mei-Wen Su

Central Washington University

August 1999

TABLE OF CONTENTS

UNIT ONE

Introduction

The project of a multimedia resource manual to facilitate English language instruction for elementary youth in Taiwan is based on the increasing demand for advanced technology applied in education. The goals and perspectives of the project focus on stimulating the concepts and strategies of English teaching/learning and adapting the changing environment in Taiwan--English teaching/learning in formal elementary curriculum.

With the interactive and exciting computer technology, the effect of language learning and reading will be enhanced and students will come into a world of discovery, of learning, and of shared delight. Capitalizing on multimedia technology in teaching/learning a foreign language can supplement some shortcomings such as the fear of speaking or making a mistake, different paces for the "quick study" and the slow learner, the change from the introvert to the extrovert, and the feeling of virtual reality which is very helpful to a foreign language learner. Hopefully, this manual can inspire ESL/EFL teachers to take risks in teaching and to encourage students to take risks in learning.

This project is designed for young children in a private English language institute of Taiwan. The goal and objectives of the programs focus on motivating children's interest in English, learning it in a more fun, natural and relaxing

environment, as well as training children to possess basic everyday English skills. It consists of seven (7) units: preface, introduction, English literacy, vocabulary building, listening & speaking development, reading development, writing development, and keyboarding.

This manual offers a variety of instructional approaches which surely motivate students and maintain their interest. Learning games in this manual provide the practice that students need to master key skills. Thus, students will never get bored with the same monotonous instructional approach. The manual introduces new techniques, new technologies, and new strategies for language teaching and learning, which is particularly beneficial to non-native speakers of English and ESL/EFL teachers, and every unit starts from the beginning level to the advanced level.

UNIT TWO

Unit Two

English Literacy

Contents	Page

English Literacy

Unit Overview

In this unit children will be offered a motivating and colorful program employing an integrated, whole-language approach to develop readiness for learning English. Children will learn very basic English from twenty-six (26) alphabets and phonics (i.e., consonants and vowels) to easy vocabulary words through attractive vocabulary cards, song cassettes, and a wealth of interesting, progressive skill-building activities. In the meantime, children will also learn simple listening, speaking, reading, and writing skills from phonics to literacy with simple and fun supplements.

Objectives of Lesson Plans

To the learning objectives of this unit, the student will be able to ...

1. recognize the letters, consonants, and vowels instantly

2. identify the missing beginning and ending consonants of a word

3. fill in missing vowels needed to complete high-interest rhymes

4. build phonemic awareness

5. make the sound-symbol connection

6. choose the best word to complete each sentence

7. recognize high-frequency words instantly

8. distinguish the correct word from two words presented

9. develop English language skills

10. promote children's interest and self-confidence

11. gain critical symbol-to-sound and decoding skills from automatic word recognition and phonics application

12. spell, read, and write words by manipulating letters

13. practice speaking simple English words and conversations at home

14. talk to classmates and parents in easy English

15. introduce himself/herself simply

Learning Activities

Learning activities will be designed in accordance with the unit student learning objectives. The skill-building activities include:

1. listening to a sing-along songs book and CD

2. arranging activities for play and practice

3. learning from singing loud

4. building phonemic awareness

5. seeing the words, hearing the words, saying the words, and then using the words

6. using CD-ROM skill-based phonics activities to pave the way for reading success

7. employing word building and matching exercises showing picture, letter, word, and sentence clues to identify the missing parts

8. giving more opportunities to practice simple oral conversations

9. providing picture/word cards and story tapes

10. dividing small groups for social conversations

11. practicing blackline master activity books in class and at home

12. providing pre- and post test for student placement

13. moving students from phonemics awareness to independence in reading and writing

Teaching Strategies

Teaching strategies include:

1. computer-assisted instruction (CAI)

2. lecture-style approach

3. oral presentation

4. peer learning

5. collaborative or cooperative learning

6. performance-oriented learning style

7. independent or individualized study

Instructional Materials

Here are resources :

1. Forest, Robert G. (1998). "Working Phonics." <u>Curriculum Associates Inc.</u>, Fall 1998.

2. "Flipping Phonics" & "Focus on Phonics." <u>New Readers Press</u>, U.S. Publishing Division of Laubach Literacy Department, New York, Fall 1998.

3. "Multimedia Reading Activities: Beginning Vol. 1 ." <u>Orchard--Teacher's Choice Software.</u> Siboney Learning Group, St. Louis, MO.

4. "Phonics Level A, B, C." <u>Orchard--Teacher's Choice Software.</u>

5. "Phonics and Friends." (Complete Program) <u>Hampton-Brown: Grades PreK-8 Catalog</u>, 1998-1999.

6. "The Alphabet." [CD-ROM] <u>New Readers Press</u>, U.S. Publishing Division of Laubach Leteracy Department , New York, Fall 1998.

7. "TV Tutor." [video programs] <u>New Readers Press</u>, U.S. Publishing

Division of Laubach Literacy Development, New York, Fall 1998.

8.   Ventriglia, Linda (1999). "Ready For English." <u>ESL And Bilingual</u>

<u>Education</u>. National Textbook Company, 1999.

UNIT THREE

Unit Three

Vocabulary Building

Contents	Page

Vocabulary Building

Unit Overview

The building vocabulary unit provides structured activities and blackline masters with a wealth of opportunities for oral and written practice, as well as contextual enrichment activities that expand students' vocabulary and enhance their reading skills. The unit has been designed to capitalize on students' interest in learning new words and using classroom computers and to help teach and reinforce basic vocabulary which students will encounter in everyday contexts. By studying and reacting to colorfully depicted real-life situations, students will learn how to use relevant vocabulary and apply to the everyday life.

Objectives of Lesson Plans

To the learning objectives of this unit, the student will be able to:

1. recognize all vocabulary in this unit

2. review consonants and vowels

3. increase interest in English learning from games

4. understand the definitions, different meanings, and usage of the vocabulary

5. review the pronunciation from learning new vocabulary

6. use and expand the unit's vocabulary

7. apply the vocabulary in everyday life such as classroom vocabulary, days and months, sports, food, family, weather, etc...

8. enrich vocabulary words in contextual reading

9. enhance reading skills

10. gain benefit in the aspect of listening

11. prepare the foundation of skills for reading and writing

12. build up the confidence in speaking through oral practice

13. increase listening comprehension and reading speed

Learning Activities

Learning activities will be designed in accordance with the unit student learning objectives. The skill-building activities include:

1. depicting vocabulary through colorful flash cards, with equivalent native words on the back of each card

2. presenting easy word games to reinforce vocabulary such as anagrams, hidden words, fill-ins, crossword puzzles, and scrambled sentences

3. using fun word games as motivating homework assignments

4. using the CD-ROM to lead students through the program

5. identifying the correct word/picture combination

6. testing recall of the vocabulary through pictures

7. encouraging students to listen to the pronunciation of each word several times

8. writing the words with their corresponding pictures on the blackline masters

9. practicing specific constructions

10. creating guided compositions

11. acting out the meanings of words that students are learning (kinesthetic learning)

12. experiencing role plays

Teaching Strategies

Teaching suggestions include:

1. computer-assisted instruction (CAI)

2. lecture-style approach

3. oral presentation

4. peer learning

5. collaborative or cooperative learning

6. performance-oriented learning style

7. independent or individualized study

Instructional Materials

Here are resources:

1. Addison-Wesley and Davidson, "Word Attack 3", [CD-ROM]. ESL 1999, Scott Foresman-Addison Wesley, NY., 1999.

2. Curriculum Associates, Inc.. North Billerica, MA, 1998.

3. ESL and Bilingual Education National Textbook Company. 1999.

4. "Let's Talk English: Vocabulary & pronunciation," [CD-ROM]. New Readers Press, U.S. Publishing Division of Laubach Leteracy Department, New York, Fall 1998.

5. Practical Vocabulary Builder. National Textbook Company. NTC Publishing Group, Illinois, 1992.

6. The Ultimate Multimedia English Vocabulary Program. National Textbook Company. NTC Publishing Group, Illinois, 1996.

UNIT FOUR

Unit Four

Listening & Speaking Development

Listening & Speaking Development

Unit Overview

The listening and speaking development unit involves ESL/EFL students in the English language environment via videodisc dialogues and audiocassettes. Students will be provided with much visual, oral, and auditory practice to learn content-area language, increase their understanding of spoken English in real-life situations, and build confidence in their ability of listening and speaking. Eventually, students can express themselves in English briefly, display positive attitudes to learn English, and communicate with other people more confidently.

Objectives of Lesson Plans

To the learning objectives of this unit, the student will be able to:

1. use relevant vocabulary words and idioms in daily life

2. demonstrate his/her understanding of video films or dialogues

3. participate in a class discussion

4. talk to other people more confidently

5. express his/her experiences, ideas, or opinions in English

6. increase interest in English reading

7. reinforce pronunciation and vocabulary building

8. display effective communication tasks

9. demonstrate effective verbal communication

10. understand the most common grammar forms and patterns

11. use the common English idioms and expressions

12. initiate an English conversation in class

13. increase English proficiency levels in listening comprehension

14. promote communication skills in increasingly proficient English

Learning Activities

Learning activities will be designed in accordance with the unit learning objectives. The skill-building activities include:

1. utilizing top-quality software CD-ROM

2. listen to audiocassettes frequently

3. designing role plays to speak to and listen to the other classmates

4. arranging talking circles to ask and answer questions about a passage

5. practicing the grammar pattern orally with the whole class

6. setting up team-work for individuals to complete a subject or a project

7. arranging interactive reading in small groups for re-telling the story

8. initiating a class discussion

9. asking questions for students to respond individually

10. leading students to a listening program on the Web: "Learning English Online"

11. creating a virtual English language experience

12. offering opportunities for students oral presentations

13. providing student pair activities for realistic practice

14. encouraging students to speak loud and record his/her voice

15. having students present orally what they have read, organized, and summarized to classmates

16. having students rehearse the whole presentation

Teaching Strategies

Teaching suggestions include:

1. computer-assisted instruction (CAI)

2. lecture-style approach

3. oral presentation

4. peer learning

5. collaborative or cooperative learning

6. performance-oriented learning style

7. independent or individualized study

Instructional Materials

Resources include:

1. Golwacki, Kenneth. <u>Communication in English</u>. Linmore Publishing, Inc., IL. 1995.

2. Nelson, Virginia. "Learning to Listen in English." & "Listening to Communicate in English." <u>ESL and Bilingual Education</u>, National Textbook Company. NTC Publishing Group, IL.1999.

3. Rost, Michael. "Activities for Building Conversations: Basics in Speaking." Longman Asia ELT, Hong Kong, 1998.

4. Sloan, Stephen. "The Complete ESL/EFL Cooperative & Communicative Activity Book." <u>ESL and Bilingual Education</u>, National Textbook Company, NTC Publishing Group, IL. 1999.

5. "TriplePlay Plus! English." & "Clear Speech." <u>New Readers Press</u>. U.S. Publishing Division of Laubach Literacy Department, NY, Fall 1998.

6. The University of Kansas, Applied English Center. "Learning English Online: Studying English on the Web—Listening."

7. URL: http://www.aec.ukans.edu/leo/english/engl_list.html, 1997.

UNIT FIVE

Unit Five

Reading Development

Contents | Page

Reading Development

Overview

In this reading unit, the motto is "Reading is the key to success." It includes comprehensive programs from easy to more challenging reading levels with innovative and multi-sensory approaches. The unit has been designed to teach in a joyful and dynamic way from reading for fun, main idea, comprehension, and concepts to reading for critical thinking. Students will learn how to set realistic personal goals, derive enjoyment from learning, improve reading competence, gain an awareness of reading strategies, build self-esteem, and advance in the acquisition of English language skills.

Objectives of Lesson Plans

In the beginning level, the student will be able to:

1. take risks without fear of making errors

2. understand his/her goals

3. learn to take responsibility for his/her own growth

4. increase sight vocabulary

5. reinforce the vocabulary through pictures

6. read through paragraphs with pictures fluently

7. strengthen the pronunciation of words and intonation of sentences

8. catch the meaning from reading

9. build reading confidence

In the intermediate level, the student will be able to:

1. practice vocabulary extension in the text material

2. see consistent and positive gains

3. experience immediate achievement

4. read text independently

5. increase English proficiency

6. accelerate and enhance reading competence

7. understand basic literary elements

8. reread for meaning and try to write it down

9. reading silently to gain meaning

10. identify the main idea for a paragraph

11. build and maintain reading confidence

In the advanced level, the student will be able to:

1. improve comprehension skills

2. determine cause and effect

3. make inferences, predict outcomes, and draw conclusions

4. self-monitor and self-correct

5. independently use and integrate reading strategies

6. continue reading silently to gain meaning

7. develop context sensitivity with regard to vocabulary meaning and use

8. summarize the main idea in writing

9. discuss thoughts and opinions with classmates

Learning Activities

Learning activities will be designed in accordance with the unit learning objectives. The skill-building activities include:

1. utilizing story readings on tape

2. providing CD-ROM programs to increase interest in reading

3. arranging games for group or whole class activities

4. offering authentic readings with exercises for reading comprehension and vocabulary reinforcement

5. involving listening, speaking, reading, and writing in practice lessons providing introductory activities for the unit skill and new vocabulary

6. selecting easy reading books with simple sentence structures to facilitate

reading fluency

7. presenting a lesson theme for a whole class such as adventure, legends, famous people, folktales, etc...

8. organizing small groups for interactive reading about discussion of main idea, practice of expressing personal views and opinions

9. practicing problem solving

10. beginning with pre-reading questions to help students predict the content

11. selecting authentic reading: an article, biography, letter, or speech to summarize and organize thoughts in preparation for writing

12. assigning additional tales or fable stories for home reading

13. using audiocassettes to supplement reading passages

14. offering CD-ROM programs to reinforce language arts and vocabulary words

Teaching Strategies

Teaching strategies include:

1. computer-assisted instruction (CAI)

2. lecture-style approach

3. oral presentation

4. peer learning

5. collaborative or cooperative learning

6. performance-oriented learning style

7. independent or individualized study

Instructional Materials

Here are resources, including:

1. "Amazing BookBytes CD-ROM." [CD-ROM] ESL 1999, Scott Foresman-Addison Wesley, NY. 1999.

2. "Clues for Better Reading." Curriculum Associates, Inc. MA, Fall, 1998.

3. High, Julie. "Second-Language Learning Through Cooperative Learning K-6" Teachers Resources for ESL/ELD. HAMPTON-BROWN 1998-1999 Catalog, CA.

3. Laris, Cristina & Hojel, Barbara. "EFL/ESL Class Starters: With Activities and Blackline Masters" ESL1999, Scott Foresman Addison-Wesley, NY. 1999.

4. Learner Response Book. ELLIS Middle Mastery No. 1 Communication Skills. Version 1.0 for DOS. CALI, Inc., 1994.

5. "Multimedia Reading Activities" [CD-ROM] ORCHARD TEACHER'S CHOICE SOFTWARE. Siboney Learning Group, MO

6. "Rainbow: Multimedia Series." [CD-ROM] Curriculum Associates, Inc.

MA, Fall, 1998.

7.   "Tales for Thinking." <u>Curriculum Associates, Inc</u>. MA, Fall, 1998.

     <u>Learner Response Book</u>. ELLLIS Middle Mastery No. 1 Communication

     Skills. Version 1.0 for DOS. CALI Inc., 1994.

8.   "Timeless Tales". <u>New Readers Press</u>. U.S. Publishing Division of

     Laubach Literacy Department, New York, Fall 1998.

9.   Walker Michael, "Addison-Wesley KIDS." <u>ESL 1999</u>, Scott Foresman

     Addison- Wesley, NY, 1999.

UNIT SIX

Unit Six

Writing Development

Writing Development

Unit Overview

This writing development unit integrates the process of reading into the writing process. The unit provides grade-levels to help students of English develop the basic writing skills. Students will be provided with a model memo, form, short stories or composition to read and analyze through brainstorming, organizing ideas, and then they practice writing by means of simple notes, journals, or CD-ROMs. Students will learn to write meaningful words and phrases on notes, personal letters, and envelopes, gain the confidence to express themselves, write and edit a composition of their own, develop and organize a basic composition.

Objectives of Lesson Plans

In the beginning level, the student will be able to:

1. respond to what he/she has read through writing or drawing

2. reinforce basic grammar points and previous vocabulary words

3. understand meanings of words and apply in the writing process

4. write simple sentences according to what he/she sees from pictures

5. communicate in easy writing

In the intermediate level, the student will be able to:

1. enhance language recall

2. write notes, messages, and letters

3. practice language skills through short-answer questions responded to reading

4. understand the basic grammar usage

5. write more clearly

In the advanced level, the student will be able to:

1. develop confidence in writing from peer reviews

2. improve the quality of writing

3. enhance an understanding of grammar usage

4. demonstrate concise compositions

5. appreciate listening to other people's writing

6. revise other students' writing

7. demonstrate specific language functions

Learning Activities

Learning activities will be designed in accordance with the unit learning objectives. The skill-building activities include:

1. using brainstorming ideas and organizing an outline

2. offering CD-ROM writing program

3. providing hands-on activities to promote understanding

4. practicing more drafts and sharing with classmates for peer reviews

5. having students take turns reading favorite compositions to class

6. giving constructive feedback from the whole class or small groups

7. creating more opportunities to write journals, personal notes

8. providing continual reinforcement

9. introducing new vocabulary and grammar usage more concisely

10. motivating students to revise and improve their writing

11. helping students how to condense the ideas

12. forcing students re-read, re-evaluate, and re-write what they have written again and again

Teaching Strategies

Teaching strategies include:

1. computer-assisted instruction (CAI)

2. lecture-style approach

3. oral presentation

4. peer learning

5. collaborative or cooperative learning

6. performance-oriented learning style

7. independent or individualized study

Instructional Materials

Resources which can be referred to are as follows:

1. ELLIS, CALI inc.

2. Glowacki, Kenneth. Communication in English. LINMORE

    PUBLISHING, Inc., IL. 1995.

3. High, Julie. "Second-Language Learning Through Cooperative Learning

    K-6." From Grades PreK-8 Catalog, HAMPTON-BROWN, 1998-1999.

4. "Kid's Media Magic 2.0," "Sunbuddy Writer," "The Writing Trek,"

    "Media Weaver," "Beginning Writing Skills," "Elementary Writing

Skills". From <u>1998 Educational Software, Grades PreK-12</u>, Sunburst Communications.

5. Laris, Cristina & Hojel, Barbara. "EFL/ESL Class Starters With Activities and Blackline Masters." Scott Foresman-Addison Wesley, NY, 1999.

6. "Laubach Way to Cursive Writing". <u>New Readers Press</u>, U.S. Publishing Division of Laubach Literacy Department, New York, Fall 1998.

7. "Process Writing" & "Process Writing-Responding to Reading." <u>ORCHARD TEACHER'S CHOICE SOFTWARE</u> Siboney Learning Group, Sr. Louis, MO.

8. "The ESL Miscellany." <u>New Readers Press</u>, U.S. Publishing Division of Laubach Literacy Department, New York, Fall 1998

9. "Writing to Others." <u>New Readers Press</u>, U.S. Publishing Division of Laubach Literacy Department, New York, Fall 1998.

UNIT   SEVEN

Unit Seven

Keyboarding

Contents   Page

Keyboarding

Unit Overview

In this unit the lessons are designed in a sequence of grade-level from identifying all keys and the function on the board to typing vocabulary words and a paragraph. Students type from copy to improve speed and accuracy as many times as they want and the records will be kept. In addition, there are fun games keeping students interested in practicing and improving keyboarding skills. The lessons will also increase vocabulary as students respond to a fast-paced keyboarding challenge as well as make students avoid commonly misspelled words in a game.

Objectives of Lesson Plans

From the lesson plans of the program, the student will be able to:

1. identify letter keys and number keys

2. learn symbols and special function keys

3. place fingers correctly

4. key it correctly

5. key vocabulary words and a paragraph

6. learn how to type and develop speed

7. reinforce spelling, grammar, and punctuation skills

8. improve typing proficiency and an accuracy rate

9. improve language mechanics skills

10. avoid commonly misspelled words

11. acquire the rules of grammar

12. learn the formal format of essay, memo, letter, etc.

13. learn word processing basics

14. utilize it in real applications

Learning Activities

Learning activities will be designed in accordance with the unit learning objectives. The skill-building activities include:

1. explaining the basic information about the keyboard in a lecture

2. demonstrating the proper posture and fingers to type comfortably and accurately

3. keeping monitoring students' progress

4. offering students more exercises to practice typing

5. practicing typing from fun games

6. determining vocabulary levels

7. setting words per minute and accuracy goals

8. personalizing keyboarding instruction

9. assigning a formal format of letter, memo, or essay

10. encouraging students to challenge fast-paced games

Teaching Strategies

Teaching strategies include:

1. computer-assisted instruction (CAI)

2. lecture-style approach

3. oral presentation

4. peer learning

5. collaborative or cooperative learning

6. performance-oriented learning style

7. independent or individualized study

Instructional Materials

Here are resources, including:

1. "All The Right Type" Ingenuity Works Inc., Seattle, WA.

2. "Type to Learn" & "Type for Fun" [CD-ROM] SUNBURST, 1998

Educational Software. SUNBURST COMUNICATIONS, NY. 1998.

3. "UltraKey." Bytes of Learning. Willowdale, Ontario.

CHAPTER 5

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

Summary

The purpose of this project was to develop a multimedia resource manual to facilitate English language instruction for elementary youth in Taiwan. To accomplish this purpose, a review of current literature and research regarding multimedia technology in English language instruction for EFL/ESL learners was conducted. In addition, unit overviews, objectives of lesson plans, learning activities, teaching strategies, and instructional materials were adapted and developed.

Conclusions

Conclusions reached as a result of this project were:

1. Serving a globally interdependent, economic society in a technology-based information age, an international educational policy of implementing English teaching/learning through computer technology integrated into elementary curriculum has already become a worldwide trend.

2. Successful computer-assisted instruction (CAI) can help to stimulate young children's intelligence from multisensory learning, motivate

46

active involvement, and prepare learners to function better in the networked global society, through the most effective way of computer-assisted language learning (CALL).

3. The integrative, multimedia technology instructional approach, providing authentic language learning environment which is closely affiliated with culture, has proven successful and effective and is advocated particularly for EFL/ESL teachers.

Recommendations

As a result of this project, the following recommendations have been suggested:

1. To facilitate acquisition of English language skill development in a globally, interdependent society, instructional use of computer technology should be integrated into elementary school curriculum.

2. To stimulate young children's multisensory learning, to assure students are engaged in the learning process, and to prepare learners for participation in the networked global society, educators should make maximum use of computer-assisted instruction.

3. To provide a culturally authentic language learning environment, EFL/ESL teachers should integrate multimedia technology into their instructional repertoire.

4. School districts or language institutes seeking to facilitate multimedia technology in English language instruction may wish to adapt and utilize the

materials from this project, or undertake further research in the field of

multimedia English instruction to meet their unique needs.

REFERENCES

Ambron, S., & Hooper, K. (1990). Multimedia technology: Tools for early learning. Learning with interactive multimedia: Developing and using multimedia tools in education. pp. 111-122. Microsoft Press.

Andersen, R. W., & Kramsch, C. (1999). Teaching text and context through multimedia. Language Learning and Technology, 2, (2). [On-line]. Available: http://polyglot.cal.msu.edu/llt/vol2num2/article1/index.html

Barbe, W. & Swassing, R. (1979). Teaching through modality strengths, concepts, and practices. Columbus, Ohio: Zaner-Bloser.

Becker, H.J. (1992). Computer-based integrated learning systems in the elementary and middle grades—A critical review and synthesis of evaluation. P.1-41. EJ 446 212.

Becker, H.J. (1992). Model for improving the performance of integrated learning systems. Educational Technology, 6-15.

Borg, K. (1985). The effects on children's writing of adding speech synthesis to a word processor. Unpublished doctoral dissertation, University of Wisconsin.

Bowman J. & Plaisir J. (1996). Technology approaches to teaching ESL students. Medias & Methods.

Bracey, B. (1997). Computer/video games as strategy – Thinking tools. Media & Methods.

Brett, P. (1998). Multimedia and language learning. University of Wolverhampton.

Chang, R.(1998). What every teacher needs to know about multimedia in foreign language education. Media & Methods.

Chen, S. (1996). The spread of English in Taiwan: A sociolinguistic study. Proceedings of the 13th conference on English teaching and learning, Taipei: The Crane.

Chun, D. (1994). Using computer networking to facilitate the acquisition of interactive competence." System, 22(1), 17-31.

Crook, C. (1996). Computers and the collaborative experience of learning. London: Routledge.

Dole,J.A. et al.(1991). Moving from the old to the new: Research on reading comprehension instruction. Review of Educational Research, 61, 239-264.

Duffy, T.M., & Knuth, R.A. (1989). Hypermedia and instruction: Where is the match? Paper presented at the NATO conference on designing hypertext for learning. Tubingen, West Germany. To appear in D. Jonassen & H. Mandl (Eds.), Designing hypermedia for learning. Heidelberg, West Germany: Springer-Verlag.

Dunn, R., Beaudry, J., & Klavas, A. (1989). Survey of research on learning styles. Educational Leadership, PP 50-58.

Earp, S. (1997). More than just the Internet: Technology for language teaching. ERIC Digest. ED 414767.

Educational resources and research (1998). Office of national educational resources, Taipei.

Ely, D. P. (1995). The field of educational technology: Update 1995—A dozen frequently asked questions. ERIC Digest, ED387 117.

Fitzgerald, J. (1989). Enhancing two related thought processes: Revision in writing and critical reading. The reading teacher, 42-48.

Franchi, J. (1995). Virtual reality: An overview. Clearinghouse on Information & Technology, ERIC Digest. [On-line]. Available: http://ericir.syr.edu/ithome/digests/firtual.html

Gardner, H. (1983). Frames of mind: The theory of multiple intelligences. New York, NY: Basic Books, Inc., Publishers.

Gillam, A. (1990). Learning through response. English Journal, 1, 98-99.

Gousseva, J. (1998). Literacy development through peer reviews in a composition classroom. The Internet TESL Journal, IV, 12. [On-line]. Available: http://www.aitech.ac.jp/~iteslj/Articles/GoussevaLiteracy.html

Grabe, W., & Kaplan, R.B. (1996). Theory & practice of writing. London & New York: Addison Wesley Longman.

Hinkelman, D. W., & Pysock, J. M. (1992). The need for multi-media ESL teaching methods: A psychological investigation into learning styles. Cross Currents, XIX.(1), pp. 25-35.

Hooper, K. (1988). Technical report #13. Interactive multimedia design. Cupertino, CA: Apple Computer, Inc.

Integrating language and content: Lessons from immersion (1995). ERIC Clearinghouse on Languages and Linguistics. [On-line]. Available: http://www.cal.org/ericcll/digest/ncrcds05.html

Kearsley, G., Hunter, B., & Furlong, M. (1992). We teach with technology. Oregon, Franklin, Beedle & Associates, Inc.

Kern, R. (1995). Restructuring classroom interaction with networked

computers: Effects on quantity and quality of language production. Modern

Language Journal, 79(4), 457-476.

Kitao, K. (1996). Introduction to CAI English class. [On-line]. Available:

http://www.ling.lancs.ac.uk/staff/visitors/kenji/kitao/instruct.htm

Ledgewood,M. (1996). Software review in the IALL foreign language

software database. [On-line]. Available: http://eleazar.dartmouth.edu/fldb/

LeLoup J. W., & Ponterio, R. (1997). Internet technologies for authentic

language learning experiences. ERIC Digest, Clearinghouse on Language &

Linguistics.

Liao, C.C. (1999). E-mailing to improve EFL learners' reading and writing

abilities: Taiwan experience. Feng Chia University (Taichung, Taiwan). The

Internet TESL Journal, V, No.3, [On-line]. Available:

http://www.aitech.ac.jp/~iteslj/Articles/Liar-Emailing.html

Lu, H. F. (1995). The research of feasible ways for English teaching in

elementary curriculum. [Graduate thesis]. National Taichung Normal College,

Taichung, Taiwan.

Means, B. et al. (1993). Using technology to support education reform.

[On-line]. Available:

http://www.ed.gov/pubs/EdReformStudies/TechReforms/index.html

Meskill, C. (1997). Technological use with ESL learners in New York State:

Preliminary report. ED 416 684.

Mielke, A., & Flores, C. (1994). Bilingual technology equalizes opportunities

in elementary classroom. ED 372 647.

Murphy-Judy, K.A. (1997). Literacy for foreign language learners in the information age. NEXUS: The convergence of language teaching and research using technology. CALICO Monograph Series, 4.

National board for professional teaching standards (1996). English as a new language, draft standards for national board certification.

Nunan, D. (1987). The learner centered curriculum. Cambridge: Cambridge University Press.

On-line: http://www.tesol.net/mele.faq.html#shatisesl

On-line: http://www.zdnet.com/yil/content/surfschool/lingo/lingo_i.htm/

On-line:

http://www.zdnet.com/yil/content/surfschool/lingo/lingo_n.html#network

On-line: http://www.u-net.com/eflweb/tefl7.htm

On-line: http://www.cal.org/ericcll/digest/rennie01.html

Park, J. K. (1997). English teaching in Korean elementary schools: Curriculum, instruction, and teacher education. (Papers from the 6th conference on English teaching and learning in the Republic of China.) Taipei: The Crane.

Pennington, M. (1996). The power of CALL. Houston: Athelstan.

Phinney, M. (1996). Exploring the virtual world: Computers in the second language writing classroom. The Power of CALL. Houston, TX: Athelstan.

Rosenbusch, M. (1995). Guidelines for starting an elementary school foreign language program. ERIC Digest, Clearinghouse on Language and Linguistics.

Schcolnik, M., & Kol, S. (1999). Using presentation software to enhance language learning. The Internet TESL Journal, V, (3), [On-line] Available:

http://www.aitech.ac.jp/~iteslj/

Seven steps to responsible software selection. ERIC Digest, Clearinghouse on Information & Technology. [On-line]. Available: http://ericir.syr.edu/ithome/digests/software.html

Sheingold, K. (1990). Restructuring for learning with technology: The potential for synergy. Restructuring for learning with technology, pp. 9-27.

Stearns, M.S., et al. (1991). Cupertino-Fremont Model Technology Schools Project research findings: Executive summary (Teacher-centered model of technology integration: End of year 3). Menlo Park, CA: SRI International.

Sternberg, R. (1988). The triarchic mind: A new theory of human intelligence. New York, NY: Viking Penguin Inc.

Teaching reading skills with technology (1997). Media & Methods. pp. 16-18.

Thompson, R. A. (1990). The relative effectiveness of computer assisted instruction (CAI) for teaching students to read in English. ED 322 479.

Tillman, G. (1995). Will implementing reading computer assisted instruction compared to traditional reading instruction produce more effective comprehension at the elementary school level? ED 392 025.

WAESOL Annual Conference (1998). Tacoma, WA. [On-line]. Available: http://www.ialc.wsu.edu/waesol/conferences/waesolconf.html

Warschauer, M. (1996a). Comparing face-to-face and electronic communication in the second language classroom. CALICO Journal, 13(2), 7-26.

Warschauer, M. (1996c). Motivational aspects of using computers for writing and communication. Tele-collaboration in foreign language learning: Proceedings of the Hawaii symposium. Honolulu, HI: University of Hawaii, Second Language Teaching and Curriculum Center.

54

Warschauer, M., & Healey, D. (1998). Computers and language learning: An

overview. Language Teaching, 31, 57-71. [On-line]. Available:

http://www.lll.hawaii.edu/web/faculty/markw/overview.html

Warschauer M., & Whittaker P.F. (1997). The Internet for English teaching:

Guidelines for teachers. TESL Reporter, 30,1. pp. 27-33. [On-line]. Available:

http://www.aitech.ac.jp/~iteslj/Articles/Warschauer_Internet.html

Wighton, D. (1997). Improving student learning through technology:

Integration. The British Columbia Ministry of Education. 1997-98 Open

School. [On-line]. Available: http://www.cln.org/inservice/itpd/integ.html

Wong, W. (1996). Educational reform committee: English curriculum is

required for elementary students. Chinese Times.

Wong, W. (1997). English teaching for 5th and 6th elementary students.

Chinese Times.

Yuen, S. C. (1989). Computer-assisted instruction: A handbook for ESL

teachers. ED 317 044.

Zamel, V. (1992). Writing one's way into reading. TESOL quarterly, 26(3).

TESL/TEFL Resource Guide at Web Sites:

A Bibliography of Resources Related to Technology Use in ESL:

http://deil.lang.uiuc.edu/resources/biblio/

AskERIC: http://www.aspensys.com/eric2/welcome.html

CALL: http://www.encomix.es/~its/linkt.htm#call

Computer-Assisted Language Learning: Selected Links:

http://www.chorus.cycor.ca/Duber/m004c.html

EFL Web: http://www.u-net.com/eflweb

English as a Second Language Home Page: http://www.lang.uiuc.edu/r-li5/esl/

ESL Café: http://www.pacificnet.net/~sperling/eslcafe.html

ESL Email Connection for ESL/EFL Students:

http://www.pacificnet.net/~sperling/student.html

ESL Exchange: http://www.ed.uiuc.edu

Lesson Plans and Resources for ESL Bilingual and Foreign Language Teachers:

http://www.csun.edu/~hcedu013/eslindex.html

Language Learning & Technology: http://polyglot.cal.msu.edu/llt

Language Learning Activities for the World Wide Web:

http://www.cibnor.conacyt.mx/est/activity.html

Linguistic Funland TESL: http://www.linguistic-funland.com/tesl.html

TESL-EJ Electronic Journal: http://www.well.com/www.sokolik/tesl-ej.html

The Internet TESL Journal: http://www.aitech.ac.jp/~iteslj

TESL: CALL—http://www.aitech.ac.jp/~iteslj/links/TESL/CALL/

The ESL Center—LINKS FOR ESL/EFL TEACHERS:

http://user.aol.com/eslkathy/teacher.htm