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THE DEVELOPMENT OF COMPUTER-ASSISTED INSTRUCTION ON THE
WORLD WIDE WEB TO ENHANCE ENGLISH LEARNING FOR THAI
NON-FORMAL EDUCATION STUDENTS

A Project
Presented to the
Faculty of Education
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Master of Arts
in
Education:
Instructional Technology

by
Vittaya Pongmussaya

June 2001


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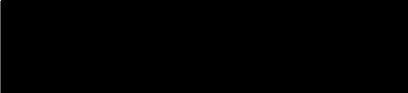
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6/5/01

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Gary A. Negin, Ph.D., Second Reader

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ABSTRACT

The purpose of this project was to develop Computer-Assisted Instruction (CAI) software on the World Wide Web (WWW). This project was an interactive English learning environment for Thai adult students at the Warin Chumrab District Non-Formal Education Center, Thailand. This project software followed the recommendation of a recent study by the Center of Education Technology (CET) indicating that the favorite types of CAI among Thai adult students were tutorial and drill and practice.

In this project students chose to learn from two types of lessons, either a tutorial or a drill and practice. The lessons were made interesting by the use of music, animation, and java applets. Internet tools, such as discussion boards, email, and related educational hyperlinks were easily accessible from within this project.

The review group consisted of 20 Thai adult students. The review group responded to a web survey after they had used this project software. The survey results found that a majority of students were satisfied with learning through this project. The surveyed students stated that the drill and practice exercises, the

tutorial, and the Internet tools enhanced their learning of English.

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CHAPTER ONE

INTRODUCTION

Background

Presently, telecommunications and computer technologies have a great impact on the development of Thailand. With the globalization era, it is hard to imagine that any country will be isolated from the impact of telecommunication technologies. Sylvia (2000) stated, "The development, prosperity and competitiveness of the developing countries will depend more and more on the level of education of all citizens, and the degree to which use of new information and communication technologies is part of their present and future educational plans" (p. 12).

The advance of telecommunication and computer technologies makes it possible for people in Thailand to access up-to-date news and information. Since most of the information on the Internet is in English, Thai people cannot understand the bulk of the information presented to them. This project addresses the need for Thai people to learn English.

English Learning Programs in Thailand

The Department of Non-Formal Education (DNFE) is responsible for organizing education for people who do not have the opportunity to study in formal schooling. The DNFE realized the importance of the English language, so it began an English curriculum in all of its distant learning programs (from primary school level through the senior secondary school level). This order of action will surely help non-formal education students gain ability to understand and use the English language; thereby, insuring the acquisition of news and information and positively impacting the quality of their lives.

In general, non-formal education students are groups of disadvantaged people who left school after they had completed their first six years of compulsory education. Due to the economic constraints in their families, these students go to work in the rice fields or otherwise move to work in the factories in Bangkok. Cavallo (1998) stated, "When people with little formal schooling wish to return to take courses, or to take the sixth, ninth or twelfth grade school examinations for certificates, they study through non-formal education" (p. 1).

Distance-Learning Programs of the DNFE

The DNFE primarily employs distance learning as its principle means to distribute its programs, including the English programs. Distance programs are considered suitable for serving the needs of students who live in various cities and remote areas of the country.

Silpa-Anan (1997) stated that through the Center of Educational Technology (CET), Regional and Provincial Non-Formal Education Centers, and District Non-Formal Education Centers, thousands of students are taught in schools and homes through its distance education programs.

However, distance-learning programs of DNFE are not recognized as good in quality. Cavallo (1998) stated, "In the past, NFE was viewed as not providing very high quality education" (p. 1).

The distance programs of DNFE are self-paced and organized by ways of broadcasting through satellite television programs, radio programs, and the distribution of learning materials to learning centers and public libraries.

Since TV programs are only a one-way communication medium, they cannot offer the type of student-teacher

interactions that a traditional classroom can offer. In addition, the TV programs do not require any feedback from the students. This results in an ineffective learning outcomes, especially in learning English.

Computer Application in Thailand

With the coming of the digital technology age, computer technology is gaining popularity in Thailand. Koanantakool, Tanprasert, and Viravan (1997) reported that in the past decade the number of computers in Thailand has increased, especially in Bangkok. Thai people currently use computers to process and store large amounts of data, to draw and create beautiful images, to develop software applications, and much more.

The Ministry of Education of Thailand also purchased some 100,000 PCs for 14,000 primary and secondary schools. In addition, the Internet is currently the hottest topic in Thailand with an estimated 180,000 users distributed among the top 16 Internet Service Providers (ISP).

The DNFE is currently in the process of applying computer technologies to increase the quality and the effectiveness of its distance learning programs.

According to Lerdsuriyakul (1999), the policy of the DNFE

will be implemented to increase the effectiveness of its educational programs as follows:

1. Develop all types of public libraries as learning centers with standardized system of information. The information technology services should be able to link and exchange educational information technology nationwide and worldwide;
2. Utilize modern technology information system to support the quality of learning and teaching development according to the NFE curricula at all levels and types, particularly on individual self-study and the student-centered principle;
3. Facilitate NFE students and people in remote areas with more educational opportunities by obtaining modern information technology learning services;
4. Develop administration, management, and reporting systems to monitor the public library's implementation of the information technology learning services. The sharing of

implementation ideas and practices through the Internet is also encouraged.

In Thailand, there has been much research aimed at finding out the potential of computer applications in education. Recently, the Center of Educational Technology (CET) conducted a survey on computer-assisted instruction products. The survey found that there were only 561 CAI software products produced by 27 educational organizations. These findings indicate the need for development of CAI software in Thailand.

Statement of Problems

The satellite TV programs generally provide only one-way communication. Distance programs of non-formal education using TV are still lacking the use of interactive learning/teaching media. In addition, most adult students of NFE are widely recognized as passive learners. Research has demonstrated that learning English should be an interactive learning activity.

To learn English, most adult students have to rely on text based-learning in the library. In addition, most teachers or facilitators who organize weekly group

meetings for students do not have the English expertise to help students gain competency in the English language.

Therefore, Computer-Assisted Instruction (CAI) on the World Wide Web should be developed in order to create an interactive and meaningful English learning environment for the students.

Purpose of the Project

The purpose of this Master's project is to create an interactive and meaningful English learning environment for non-formal education students in Thailand by:

1. Developing a Computer-Assisted Instruction (CAI), which can be uploaded to the World Wide Web (WWW);
2. Creating a web page with various Internet tools such as multimedia documents, e-mail capabilities, discussion boards, and related educational links.

Significance of the Project

Due to the convenience of the Internet's accessibility and its asynchronous nature, English CAI on the World Wide Web could serve the needs of Thai NFE students and promote independent learning behavior. With

CAI, when students access the Internet, they can engage in an interactive learning environment. In addition, they will have the opportunity to learn how to use Internet tools, such as email or discussion boards. Students can also use hyperlinks to visit related English web sites. This will result in a more active, constructive and meaningful learning environment for them.

Limitations and Delimitations

During the development of the project, a number of limitations and delimitations were noted.

Limitations

The following limitations apply to the project:

1. The authoring application (Hot Potatoes software version 4) used in this project was written only in English and the software did not have a Thai version.
2. This software project focused on teaching only a small subset of English. Students were exposed to the rules of regular English verb tenses only (e.g. no irregular verbs, nouns, pronouns, adverbs, or adjectives).

3. This software was only reviewed and tested by 20 Thai adult students.
4. A demonstration survey was conducted that was very limited in scope. The main purpose of the evaluation survey conducted was to show the viability of web based surveys.

Delimitations

The following delimitations apply to the project:

1. The Hot Potatoes software should have a Thai version. Then this CAI software could be more useful in Thailand.
2. The future versions of this software will include the study of English irregular verbs, nouns, pronouns, adverbs, and adjectives.
3. Reviews and tests should be done on a larger more diversified group.
4. In future versions of this software, a more in-depth survey will be used to guide the direction of the English CAI.

Definition of Terms

The following terms are defined as they apply to the project.

- Computer-Assisted Instruction (CAI) - When computers take the role as teachers or as tutors. CAI is designed so learner can interact with the computer.
- Non-Formal Education Students (NFES) - This is the group of students who register into the distance learning program of the Department of Non-Formal Education in Thailand.
- The Center of Educational Technology (CET) - An organization of the Department of Non-Formal Education responsible for conducting research, producing, and implementing of all educational technology for both formal and non-formal education students.
- The Department of Non-Formal Education (DNFE) - An organization of the Ministry of Education responsible for organizing adult education in Thailand.

Organization of the Project

The project is divided into four chapters. Chapter One provides background information, statement of problem, purpose of the project, significance of the

project, limitations and delimitations, definitions of terms, and organization of the project. Chapter Two consists of an introduction, a review of relevant literature, and a conclusion. Chapter Three documents the instructional design process and consists of an introduction, analysis, design, development, implementation, evaluation, and conclusion. Chapter four presents conclusions and recommendations drawn from the development of the project.

CHAPTER TWO

REVIEW OF THE LITERATURE

Introduction

Chapter Two presents a review of the literature concerning the use of the Internet in education, the impact of CAI in language learning, the types of CAI, and learning theories applied to CAI.

Use of the Internet in Education

Jonaseen, Peck, and Wilson (1999) wrote that the Internet is a worldwide network of networks, interconnecting small regional networks and millions of users in more than 90 nations around the globe. These regional networks are composed of still smaller networks that serve institutions, businesses, and individuals who connect their computers to the regional networks via modems and telephone lines. Grabe and Grabe (1998) stated, "The Internet is an international collection of computer networks, with an estimated 40 million users in nearly 100 countries" (p. 190). The basic infrastructure required to connect computers to the Internet consists of several components such as the Internet backbone, the

Internet service provider, the transfer line, and the hardware device.

Sampson, James, Kolodinsky, and Robert (1997) stated that the Internet evolved from computer networks developed for the military. Then, additional networks were created on a profit and nonprofit basis to serve a more diverse group of academics, government workers, and business people.

The Internet is currently recognized as a powerful source of news and cultural information. It is possible for people to access news and information within a few seconds and the Internet is experiencing tremendous growth. Calderon (1999) stated, "The World Wide Web is creating opportunities to instantly acquire and use cultural information about foreign countries that would previously take hours of research" (p. 161).

Bates (2000) reported that development on the Internet and multimedia technologies are resulting in new approaches to learning. Characteristics of such developments can be summarized as follows:

- An increased flexibility and access to information has resulted in new possibilities

for learners and has particularly facilitated the trend of life-long learning for the entire world population;

- The use of multimedia technologies in education has been shown to increase psychomotor, problem-solving, intellectual skills and decision-making skills.

[A number of recent studies (Harrell, 1999; Grade & Grabe, 1998; Sullivan, 2000) have focused on the use of the Internet in education. These studies concluded that the effectiveness of learning through the Internet comes from the interconnection of multimedia tools such as e-mail, mail-lists, text-based interaction (chat), video-conferencing, computer-mediated communication, and discussion boards. According to Harrell (1999), "computers are excellent vehicles for foreign language teaching at a distance. For example, they can allow students to use language-learning software for drill and practice or to surf the web and find a large variety of information in many languages" (p. 267).] Electronic mail or e-mail is the most frequently used Internet resource. Grabe and Grabe (1998) explained that e-mail could be

used to ask a question, post a simple reminder, or transmit a lengthy report. It can serve as a substitute for traditional mail, faxes, telephone messages, and voice mail. E-mail can facilitate active and meaningful learning because it allows the student to receive feedback, question and communicate quickly. E-mail enables communication processes between students and teachers; communication is essential to learning.]

According to Sullivan (2000), the use of online discussion forums in a traditional, face-to-face composition classroom changes the social dynamic of the classroom. Online discussion gives students the opportunity to participate in real-life writing situations, creates a writing-intensive environment, and enables the value of good writing to be demonstrated every day. Online discussion allows every voice in the classroom to be heard, enables students to think carefully about what they want to say, changes the authoritative relationships in the classroom and helps create a more student-centered setting. Online discussion gives students the chance to do a great deal of informal writing, and allows students to review material they

might have missed or material they may have found interesting.

As mentioned, the Internet is a vast and open space to navigate and explore. Potential dangers on the net include inappropriate sexual content, vulnerability to physical harm or molestation, harassment, and legal and financial threats. Spangler (2000) stated that there are possibilities for all kinds of wild cards--hacker attacks, terrorism, and virus attacks. The Internet will become a natural place where commerce happens, and also a place where crime and terrorism play out. Educators need to be aware of the negative impact of the Internet on education.

Impact of CAI in Language Learning

Many studies (Michael, 1991; Donna, 1998; Anista, 1974; Askar, 1992) have shown the impact of CAI in promoting and creating an active, meaningful learning environment. CAI has been shown to enhance self-paced learning, lifelong learning and critical thinking, especially in learning English as a second language (ESL). Michael (1991) stated, "It is widely believed that

computer-based activities and exercises can assist language learning" (p. 224).

In situations where human tutors are not readily available, computer tutorials play an important role in helping students grasp concepts. Computer tutorials benefit the teacher greatly in a sense that the teacher does not have to repeat instructions to those students who have missed the content. Computer tutorials have the advantage over the limitations of human tutorials because the computer will not get tired, frustrated, or angry with the students. Donna (1998) stated, "In the case of language learners, cooperative CALL provides a non-threatening context that allows students to make errors without being criticized" (p. 124). This is most suitable for students since they can avoid common frustrations, such as the fear of feeling inferior intellectually, being embarrassed, or suffering from hurt pride.

According to Anista (1974), two experimental groups (one male and one female) consisting of 51 students received computer-assisted instruction as part of the method of instruction. The control groups (one male group and one female group) consisting of 63 students did not receive computer-assisted instruction. The design of the

experiment involved pretests and posttests. Nine null hypotheses were investigated. The results of the analysis of data led to an acceptance of all nine hypotheses. There was no significant difference between the experimental and the control groups.

However, even though there was no significant difference between the experimental and the control groups, Askar (1992) stated that the students had more positive attitudes when they studied with the CAI. According to his survey studies on 137 Turkish fifth graders, CAI was perceived as more interesting, better understood, and more motivating comparing to traditional classrooms.

In addition, Shute and Miksad (1997) studied the use of microcomputers with preschoolers. Fifty-one children were randomly assigned to three groups, distinguished by the level of computer-provided scaffolding: substantial, minimal, or none. A pretest-posttest design was used to compare cognitive changes over an 8-week period. In terms of specific skills, Computer-Assisted Instruction (CAI) software was successful in increasing verbal and language skills, but not basic math skills. Results also revealed that software with substantial scaffolding features

increased general cognitive abilities significantly more than minimally scaffolded instruction.

In verbal and language skills learning, CAI also shows positive results. Tracey, Charles and Melinda (2000) stated, "In many studies CAI was found to be a medium in which children improved reading skills" (p. 173). Huss and Susan (1990) explained that using CAI software can be an exciting and rewarding experience for adult ESL literacy learners and their instructors, especially when these tools are used to facilitate interpersonal communication alongside language and literacy skills development. The use of computers can create a new social and instructional environment for language learning and literacy acquisition. The prospects for using computer-assisted instructional programs and other technological media with adult ESL literacy learners are excellent. The CAI programs can be designed or adapted especially for adult ESL learners. Instructors must be willing to try new and innovative approaches.

Hsien (1997) wrote that Computer-Based Instruction (CBI) has the potential to advance proficiency in learning English as a foreign language by involving students actively in pedagogy that combines language and

culture with integrated language skills. Computer-Assisted Instruction (CAI) provides various learning opportunities and a variety of learning experiences to make linguistic input more accessible to second language learners.

In classroom activities, if the students just sit back and listen to the lecture, they rarely become competent after being only receivers of the information. According to Dori and Barnea (1997), with the use of CAI students can become more involved with learning activities and depend more on themselves. The computer enables the students to be actively involved in the learning process, individually or in groups. The computer allows students to progress at their own pace, an important implication for the gifted learners as well as for the low achievers. The computer can be used as a source for mastery learning, problem solving, and enrichment material.

CAI supports learning by providing interaction between computers and learners, which can change the role of teacher as a facilitator. In addition, learners can engage in self-placed learning and take control of their learning activity. Jonaseen, Peck and Wilson (1999) wrote

that technologies are applications of human knowledge to real-world problems. They are tools for supporting human needs. Computer technologies such as word processors, spreadsheets, desktop publishing, and computer-assisted design programs all enhance the productivity of their users. Most knowledge construction (and reproduction) requires producing communications, designing materials, or managing resources. Technologies as tools extend human functional capabilities.

The advance of authoring software such as Authorware, Hypermedia, Toolbooks, and Hot Potatoes makes it possible for teachers to create their own Computer-Assisted Language Learning (CALL). Herbert (1998) stated, "Although commercially produced applications are available, recent advances in presentation and authoring software giving more educators the chance to develop their own multimedia applications" (p. 88). In addition, some authoring software do not require computer programming. Estelita (1999) reported that with the abundance of authoring systems available today, instructors are developing programs that correspond to their particular curricula. These systems are fairly easy to use and allow the instructor to enhance the

instruction by integrating teaching materials at their disposal such as laserdisc, video, graphics, CD audio, digitized audio, text, and so on. Many of the authoring programs allow the instructor to toggle back and forth between the template and the actual text to assure that the finished multimedia program includes listening, speaking, writing, and reading.

Types of CAI

In general, the computer is being used in education in many different ways. The computer can be used as a tutor, a tool, or a tutee. The computer acts as a tutor when it performs a teaching role. It functions as a tool when it is used as a typewriter. In its role of tutee, the computer programmer must communicate with the computer in the language that the computer understands.

Computer-Based Instruction (CBI), Computer-Assisted Instruction (CAI), and Computer-Assisted Learning (CAL) are usually referred to as tutor style applications. Merrill, Hammons, Vincent, Reynolds, Christensen and Tolman (1995) further classified tutor applications into many categories such as drill and practice, tutorials, simulations, problem-solving applications, and games.

Drill and Practice

In drill-and-practice applications, the computer is used to help the student memorize the appropriate responses to some stimuli. The student is asked to enter the correct response. The computer evaluates the response and gives the student appropriate feedback. In a sense, the computer serves as a sophisticated flashcard presenter. By keeping track of how each student responds to each item, the computer can tailor the drill-and-practice sessions to the needs of each individual student (Merrill, Hammons, Vincent, Reynolds, Christensen, & Tolman, 1995).

An important consideration in the design of computer-based drill and practice programs is providing appropriate feedback to learners. Feedback used with CAI is any statement, display or sound presented by the computer to learners following their responses. Among other things, it provides information to learners whether their response is right or wrong, and it helps to motivate them (Rattanapian & Gibbs, 1995). According to Kemp and Smellie (1989), "Drill and practice is designed to provide the learner with a series of questions or exercises typical of those found in a workbook" (p. 283).

However, Grabe and Grabe (1998) pointed out that whereas other types of instructional software maybe used for several phases of instruction, drill-and-practice software has a more limited focus. It should not be used to introduce new areas, as it has a narrow approach not suited to helping students understand new materials. Drill-and-practice activities are appropriate after students have advanced past the guidance phase of instruction. Larsen (1995) stated, "The drill and practice procedure is designed to provide extensive rehearsal and consolidation of skills already in the student's repertoire" (p. 118).

Tutorials

The primary purpose of tutorial applications is to teach new information. For example, in a tutorial program dealing with the concept of a noun, the computer presents the definition of a noun, show several examples of nouns in sentences, and then asks the student to practice identifying nouns in new sentences. Tutorial applications are similar to a programmed textbook. Some relatively small piece of information is presented; the student is asked to respond to a question about the information; the computer provides feedback concerning the accuracy of the

student's response. Then the cycle is repeated: more information, question, and feedback.

Ideal tutorial programs are able to tailor the material to the needs of individual students. If a particular student is having difficulty, the computer can present remedial material. Students who are doing well may skip over elaborations, extra examples or practice items (Merrill, Hammons, Vincent, Reynolds, Christensen & Tolman, 1995).

However, Trang, Ghenniwa, and Kamel (1999) argued that traditional computer-based tutoring systems lack the support for many aspects of effective training and learning, such as personalization and collaboration. To deal with these issues, a computer-based tutoring environment should be able to accommodate the constant changes of the learner's knowledge level and needs, as well as to the knowledge domain.

Simulations

Merrill, Hammons, Vincent, Reynolds, Christensen and Tolman (1995) stated that simulations are representations or models of real systems or phenomena. They allow students to experience certain phenomena vicariously with less risk and cost. For example, medical students can

interact with a computer-simulated patient in order to practice their diagnostic and prescriptive problem-solving skills. If the computer patient's condition worsens, the medical student will learn the consequences of improper diagnosis and treatment, but no human suffering will occur. Simulations can also allow students to experience phenomena that would otherwise be too expensive or time consuming.

However, Thompson, Simonson and Hargrave (1996) stated that early research on the effectiveness of simulations in education has provided inconclusive results. Some have suggested that this is due to the use of achievement tests as outcome measures for these experiences. Since simulations are designed to give students an opportunity to learn and use problem-solving skills, test should measure these skills and not just evaluate content knowledge.

Problem-Solving

Thompson, Simonson and Hargrave (1996) explained problem-solving software, like simulation software, is designed to use computer capabilities to enhance teaching and learning for higher order problem-solving strategies. Most problem-solving software is similar to simulation

software because students are placed in situations where they can manipulate variables and then receive feedback on the results of these manipulations. Simulation, however, are attempts to model real-life situations and objects, whereas problem solving software lessons are a more general category of software that includes less specific educational environments. Research in this area has also been somewhat problematic because of the lack of effective measures of problem solving and high order thinking skills.

Games

Grabe and Grabe (1998) summarized that educational games are activities that emphasize competition and entertainment. If an educational activity has a winner or focuses on student competition, then the activity is said to have game like qualities. Games also employ fantasy, action, uncertainty, and similar features to make the activity interesting for the players. Some researchers (Lepper & Malone, 1987) have analyzed games to determine what makes them enjoyable, in order to suggest how software developers might improve their instructional products. If software is to be labeled, it is often necessary to subjectively determine the degree to which

certain characteristics are present. Is some entertainment used to motivate learning, or does some learning result as a by-product of play? Some have begun describing some game activities as "edutainment".

Merrill, Hammons, Vincent, Reynolds, Christensen, and Tolman (1995) also pointed out that one of the great strengths of educational games is their ability to promote a higher level of student motivation. Curricular areas that have been hard to teach because of low student interest or motivation may be strengthened through the use of a carefully integrated educational game. This is especially the case with discrimination or verbal information tasks that require students simply to memorize information.

However, games that build problem-solving skills but have little relevance to the subject matter being taught must be used with discretion. Games that develop skills that are congruent with the curriculum have greater educational value than those that are simply amusing. In fact, those games that combine the development of higher-order skills with relevant subject matter not only enhance motivation through the amusement of the game but, at the same time, they present information and reinforce

the retention of that information through an easily remembered, challenging experiences.

In short, most students choose computer games because they want to, not because the teacher or someone else wants them to. This brings in to play the student's own desires, which may make a major difference in the effectiveness of the instruction.

Learning Theories Applied to CAI

Kemp and Smellie (1989) summarized Operant Conditioning as the learning theory involved with the design of computer-assisted instruction. The theory of operant conditioning is built on Skinner's view that learning is behavioral change. Behavior is the result of an individual's response to events taking place in one's environment. These are stimuli (messages), which elicit response (learning) in the learner. A response produces a consequence, such as defining a word, solving a math problem, or writing a chemical formula. Following a successful response, the learner has the feeling of accomplishment and satisfaction. Some type of "reward" - verbal approval, a price or grade - maybe received. This serves to reinforce the learning.

Kemp and Smellie (1989) stated that Skinner's approach to learning has been applied to instruction designed as programs in a book format or through mechanical devices called teaching machines. The emphasis is on presenting a sequence of small amounts of subject content, requiring an appropriate response to each item, and then followed by immediate knowledge of results (feedback). If the response is correct, learning is reinforced.

According to Rattanapian and Gibbs (1995), cognitive learning theorists believe that the capacity of attention to perform separate tasks and the number of mental operations that can be performed at one time is limited. The amount of attention required by a task depends on how much practice that task requires. The more an individual practices, the more automatic the task becomes. In order for learners to efficiently perform many complex tasks, performance of lower level sub-skills must become automatic because automaticity enables learners to devote attention to more complicated aspects of a task.

This need to automatize sub-skills results from the limited capacity of working memory. Drill and practice programs can help bring the learner to a level of

"automaticity" on lower level sub-skills to facilitate efficient performance on higher-level skills.

Conclusions

Based on the literature review, it was concluded that the learning environment, supplemented by properly designed computer-assisted instruction programs, is more effective and provides increased learning.

- CAI and the Internet change the teacher's role, and increase the student's involvement in learning activities. In addition, collaborative learning can be enhanced when students learn and share their experiences with other students.
- Text, text readings, graphics, sounds, and pictures help students understand content and capture student attention. They also increase students' self-learning and motivate further exploration into learning.
- Using CAI, students can receive feedback immediately, which increases student motivation and participation.

- Interaction with computer-assisted instructions help students feel they are interacting with someone, excites their curiosity, and augments their learning experience.
- Computer-assisted instructions promote problem-solving skills and self-paced learning; as a result, students gain a positive attitude toward learning.

CHAPTER THREE
INSTRUCTIONAL DESIGN AND
DEVELOPMENT

Introduction

Chapter Three discusses the development of this project followed by a summary. The project was based on the instructional design and development model as follows: Analysis, Design, Development and Evaluation.

Analysis

The analysis was conducted according to the following topics: student learning needs and student learner characteristics.

Student Learning Needs

Student learning needs were determined by interviewing teachers and students at Warin Chumrab District Non-Formal Education Center during the summer of 2000. From the interviews, it was found that most of the teachers and students had some experience using the Internet. It was determined that the English subject content they needed most was how to use verb tenses. Also, it was found that the students thought the Internet was more convenient and flexible than the current

educational TV programs. They could access the Internet at their convenience, at any time. On the other hand, TV based education programs were set to a rigid broadcast schedule.

Educational TV programs were not usually rebroadcast so students could not make up missed lessons. Students stated that they wanted a kind of instructional media that they could interact with, such as a computer.

Student Learner Characteristics

Non-formal education students were adults aged between 18-50 years. Most of the students were from low-income families. These students left school when they completed their compulsory six-year education and went to work in rice fields or in the city.

The general characteristics of these students were that they were not self-motivated to learn. The students depended on the teacher to provide learning experiences, usually in the form of a familiar face-to-face classroom learning style. Most of them were passive recipients of lectures in the classroom. The Thai students were usually embarrassed to ask any questions in class, which was due to the Thai culture. In Thailand, it was not polite or respectful if students critiqued or spoke negatively

about the teacher. The teacher was the center of all learning activities in school. The educational model needed to be modernized more towards a student-centered model where students were in control of their own learning. Things were changing in Thailand. Most schools in Thailand were equipped with computer technologies.

Design

Special attention was given to the design of the user interface (or screen layout) in this project. The following surveys were used to rate the user interface: Readability, space, color, sound, and special effects (e.g. java applets). The design of this web site focused on clarity and simplicity in order for students to quickly navigate to their desired pages and interests.

Each content page included home, back and next for an easy navigation throughout the web. One navigation tool that provided feedback and directed students was the hover button that was highlighted when students moved the mouse over it. Also included were java applets and background music to stimulate and interest the students.

Within this learning web, there were five parts: 1) main page, 2) a variety of content pages, 3) choices of

exercises, 4) and Internet tools such as Discussion boards, E-mail Applications, Web Translators, English Listening Lounges, Dictionaries, and 5) a survey for feedback on the learning web's effectiveness.

Main Page

The software used in creating the main page was Microsoft FrontPage 2000. FrontPage 2000 had many functions to create a web, including fonts, HTML code generation, graphics, themes, navigation bars, horizontal lines, marquee, automatic hyperlink management and other useful tools.

The Main page (see Appendix A) was designed to include title, introduction, Internet tool links, animations and hover buttons. The introduction talked about the purpose of this project, Hyperlinks took the student to discussion boards, web translators, email applications, English listening lounges and online dictionaries. Hover buttons provided links to content pages.

The main page served as the home page. In order to create an enjoyable learning environment, the main page included java applets for visual entertainment, a marquee

welcomed students with scrolling text and music as a background.

Content Pages

Each content page (see Appendix A) was designed using FrontPage 2000 to create graphics, pictures and hover buttons. The hover buttons were hyperlinked to previous, next, home, and exercise pages. The content area was placed in the middle of each page.

Exercise Pages

The exercise pages (see Appendix B) were designed and created using Hot Potatoes software, version 4, to create three different types of drill and practice exercises. The three types were fill-in or cloze type sentences, multiple choice, and matching exercises. The Hot Potatoes software was easy to use and helpful in the development of this CAI software application. Since both FrontPage 2000 and Hot Potatoes were code generation tools, users who did not have high levels of computer skills could produce professional looking educational web pages.

The Hot Potatoes software consisted of a set of six authoring tools, created by the University of Victoria CALL Laboratory Research and Development team, which

enabled teachers to create interactive Web-based exercises of six basic types. The authoring tools created exercises of drag-and-drop, gap-fill, multiple choice, crossword, jumbled sentence, and matching. In this project only gap-fill, multiple choice, and matching exercises were used. The exercises worked with the most common Internet browsers, Netscape Navigator and Microsoft's Internet Explorer.

In general, the user interface in Hot Potatoes was easy to use. The user needed to answer simple questions about the format of a quiz and the program created the HTML code, the web page, the navigation, and the user interface automatically.

Internet Tools

The Internet tools employed in this web site served as supplementary tools for the students to learn the CAI by themselves. All the Internet tools were free of charge.

- The Discussion board area was a hyperlink to Board D's server located at <http://board.dserver.org>.

- The Online dictionary was a hyperlink to http://www.links.nectec.or.th/lexit/te_lex.html.
- The Pasit web translator was an English-to-Thai computer-based translation service on the Internet. English information on the Internet was transmitted to the syntactic and semantic knowledge base. This web site translated English web pages into Thai web pages and then sent the result in the original layout back to users. The students could use this web translator when they wanted to translate an English web site. Pasit web translator could be found at <http://c3po.links.nectec.or.th/pasit>.
- The English listening lounge was a hyperlink to <http://www.englishlistening.com>, where students could listen, learn and practice the English language.
- The Free email web site provided hyperlinks to more than 40 free email web sites for students to obtain a free email address.

Evaluation Survey

An evaluation survey (see Appendix D) was created using pollit.com. The Evaluation survey form was a web page that provided students an opportunity to evaluate the CAI software.

Content Outline

Objectives: 1) Students should be able to identify the regular forms of common English verbs; 2) Students should be able to understand and use verb tenses correctly.

Lesson One

- Simple present tense and exercise
- Simple past tense and exercise
- Simple future tense and exercise

Lesson Two

- Present continuous tense and exercise
- Past continuous tense and exercise
- Future continuous tense and exercise

Lesson Three

- Present perfect tense and exercise
- Past perfect tense and exercise
- Future perfect tense and exercise

Lesson Four

- Present perfect continuous tense and exercise
- Past perfect continuous tense and exercise
- Future perfect continuous and exercise

Internet Tools

- Discussion Board
- Dictionary
- Email application
- Web Translator
- English Listening Lounge

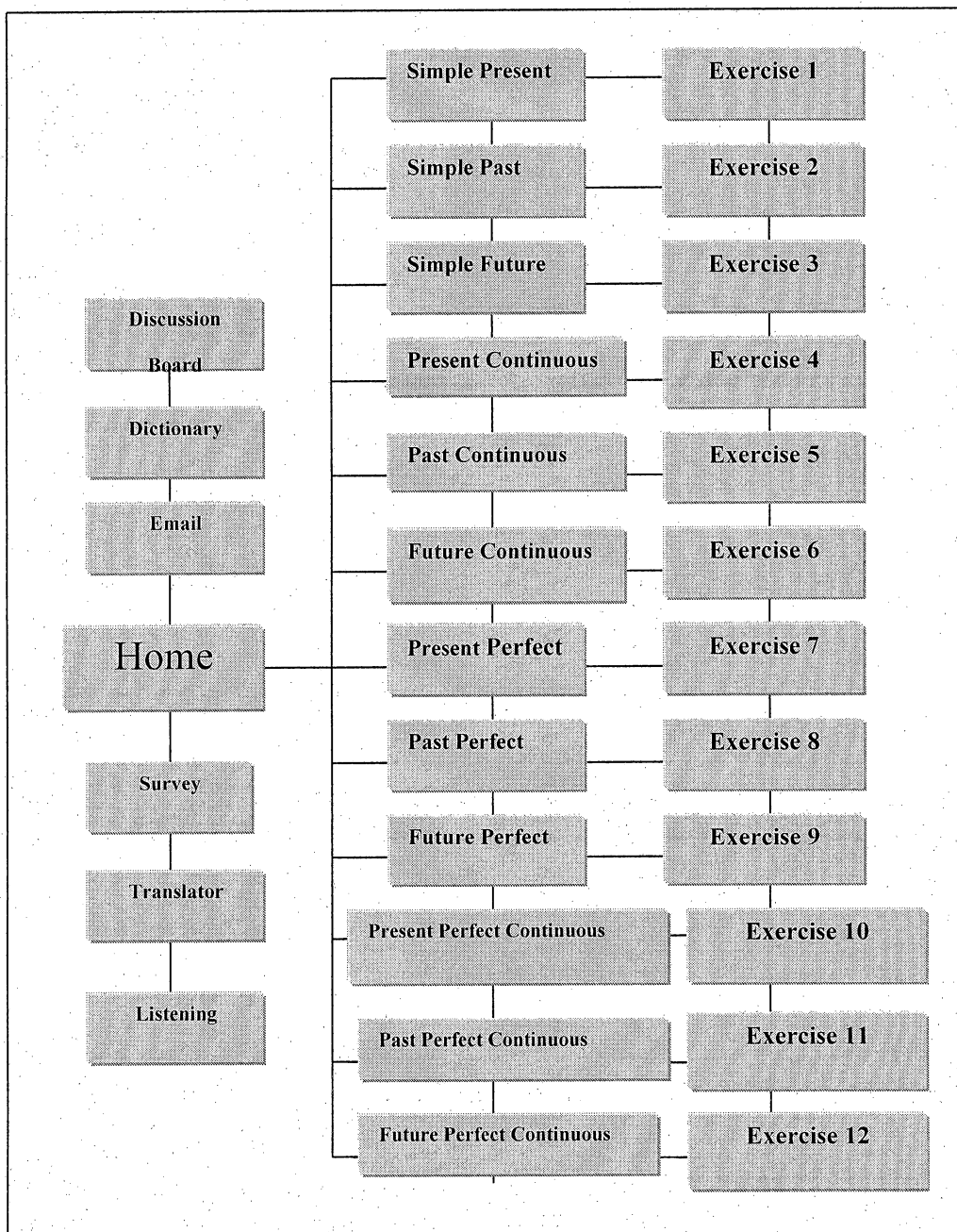
Evaluation

- Survey for web site evaluation

Navigation Structure

The navigation structure of this project web was organized as follows: The home page had hyperlinks to 12 content pages. Then, each content page had one hyperlink to a related exercise page. In the exercise pages, there were hyperlinks to the parent content page, a back hyperlink, and next exercise hyperlink. Students could also work through all 12-exercise pages without navigating back to the home page or the content pages.

Figure 1. Web Flowchart



Web Storyboard

Storyboard is shown in Appendix C.

Development

The home page, content pages, hover buttons, and graphics of this project were created using FrontPage 2000 software. The web site "Using Verb Tenses", MacFadyen (1995), was used in the development of the English verb tense definitions in the content pages. The Hot Potatoes software was employed to create the drill and practice, fill-in, and matching exercises. The book "English Grammar 2", Chariyanon and Kustiyasuwan (1999), was used in the development of the example and the exercise pages. The special effects of this project were achieved using java applets derived from the Anfyteam software. Anfy 1.4 was a set of 40 applets and a Windows program, called Anfy wizard. There were two separate modules, and non-Windows users could use the applets by manually editing the applet's parameters. The applets were written in Java™ technology. The Java wizard outputted the HTML code into all the necessary web pages (see Appendix A, B, C, and D).

Evaluation

Since the targeted group of this project lived in Thailand, the CAI was uploaded to

<http://www.geocities.com/wdnfe/index.htm>. After the software was published to the WWW, a teacher at the Warin Chamrab DNFE introduced the web site to a group of 20 students. The students were given an assignment to explore and study the English CAI by themselves at the school (2 meetings) and at their homes for a period of two weeks. After the two-week trial period, the students were asked to fill out a six-question survey to evaluate the English CAI. However, in order to improve the future versions of this software, observations, interviews and open-ended questions should be added in the web survey.

The evaluation process asked students to fill out the survey feedback form created at pollit.com (see Appendix D). There were 6 survey questions and the survey asked students to answer the following questions.

1. What did you think about this web site?
() Excellent () Good () Fair () Poor
2. Rate how well the content served your learning needs?
() Excellent () Good () fair () Poor
3. Rate how well the exercises helped you increase your understanding of regular English verb

tenses?

Excellent Good Fair Poor

4. Rate how convenient learning on the Internet was?

Excellent Good Fair Poor

5. Rate how well the web (CAI) was designed?

Excellent Good Fair Poor

6. Rate how well this web site enhanced your learning of English?

Excellent Good Fair Poor

Survey Feedback

For the survey evaluation a group of 20 adult students were chosen to test the project software. Table 1 showed the feedback of the 20-student evaluation group. The response choices were (1) Excellent (2) Good (3) Fair (4) Poor.

According to Table 1, the feedback posted by students to question 1 indicated that a majority (seventy-five percent) of students thought that the web site was excellent, fifteen percent stated that the web site was good, and ten percent stated that the web site was fair. The survey results for question 2 indicated that thirty five percent of the group responded

excellent, fifty percent responded good, and fifteen percent responded fair regarding how well the web contents served the learning needs of the trial group. The survey results for question 3 indicated seventy percent responded excellent, and thirty percent responded good regarding the CAI exercises. The survey results for question 4 indicated sixty five percent responded excellent and thirty five percent responded good regarding the convenience of using the Internet. The survey results for question 5 indicated eighty percent responded excellent and twenty percent responded good regarding the web design. The survey results for question 6 indicated eighty percent responded excellent and twenty percent responded good rating how well the web site enhanced their learning of English. Overall, the survey results indicated that this project CAI on the WWW augmented the learning of English.

Table 1.

Survey Questions

Survey Questions	1	2	3	4
1. What did you think about this web site?	75%	15%	10%	
2. Rate how well the content served your learning needs?	35%	50%	15%	
3. Rate how well the exercises helped you increase your understanding of regular English verb tenses?	70%	30%		
4. Rate how convenient learning on the Internet was?	65%	35%		
5. Rate how well the web (CAI) was designed?	80%	20%		
6. Rate how well this web site enhanced your learning of English?	80%	20%		

From using this limited survey technique several points were noted. First, face-to-face interviews and observations should take place during the evaluation survey process. Notes from interviews and observations can then be used as a basis for software changes.

Secondly, a more in depth survey should be performed on such things as the usability of web navigation, user interface, and student exercise preferences.

Summary

This project first analyzed student learning needs and student learner characteristics. Based upon the student needs and characteristics a model was developed to satisfy student needs and requirements. The project's main page, content pages, exercise pages, and Internet tools were developed based upon the initial model to satisfy the specific student learning needs discovered in the initial analysis.

The navigation structure and the web storyboard dictated how the structure and development of the software proceeded.

This software was a very limited demonstration model of what was possible for distance education for Thai students. The student evaluation group stated that overall they found the web site to be useful. In future versions of this software, a more in-depth survey will be used to guide the direction of the English CAI and a

programming group will be used to design, develop, and test all aspects of the web CAI.

CHAPTER FOUR

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The purpose of the development of this CAI project on the World Wide Web (WWW) was to create an interactive and meaningful English learning environment for Thai adult non-formal education students. This CAI project was a self-paced learning program that combined both the tutorial model of instruction and drill and practice teaching.

The targeted learners were Thai adult students, who studied at Warin Chumrab District Non-Formal Education center, Ubon Ratchathanee, Thailand. The evaluation group consisted of 20 adult students who navigated through and used the features of the CAI software by themselves. After using and learning with the CAI, students evaluated the web site using the web survey provided by pollit.com. The URL for this project was located at <http://www.geocities.com/wdnfe/index.htm>

Based on the feedback of the survey, it was concluded that students had a positive experience toward learning through the CAI on the WWW. They thought CAI on the WWW

improved their English learning experience, was convenient to use, and served their learning needs. This project software represented the start of educational software development on the WWW for adult non-formal education students in Thailand.

Since the software was uploaded on the WWW, other groups of students could use this software. Feedback from other groups of students would be important to the finalization of this software.

Recommendations

From the feedback results this CAI producer formed the following conclusions:

1. This CAI on the WWW augmented the learning of English and therefore could play an important role in Thailand for distance learners.
2. This project could be used as a reference for interested teachers or educators in designing CAI software as self-paced learning tools;
3. Subsequent testing should be conducted on larger groups of students in order to address Thai students' particular needs in the further development of the CAI software. This testing

will involve a quality assurance group who will conduct in depth interviews, web site usability, and user preferences with regard to exercise content.

This project demonstrated successfully the power of the use of the Internet in distance education for Thai students. Although distance education on the Internet in Thailand is in its infancy, based upon the positive feedback from the evaluation group of Thai students, this type of technology will play a major role in distance education in Thailand in the future.

APPENDIX A
ENGLISH CAI ONLINE

Objectives:



Please click on the buttons below to learn the lessons.



Lesson One

Simple Present Tense

Simple Past Tense

Simple Future Tense



Lesson Two

Present Continuous Tense

Past Continuous Tense

Future Continuous Tense



Lesson Three

Present Perfect Tense

Past Perfect Tense

Future Perfect Tense



Lesson Four

Present Perfect Continuous

Past Perfect Continuous

Future Perfect Continuous

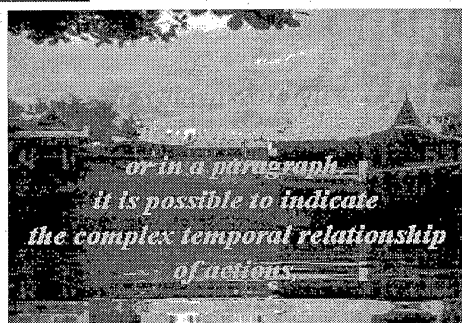
EnglishCAIOnline

Welcome to our English (

Warin DNPE Center, Ubon Ratchathane, Thailand

The purpose of this CAI web site is to create a simple and interactive English learning environment for Thai adult students at Warin DNPE center, Ubon Ratchathane, Thailand. This web site provides the students with various types of interactive exercises about common regular English verb tenses and many other Internet tools to facilitate learning the English language. Some of them include discussion board, dictionary, web translator, English listening site, free e-mail and web evaluation.

- # [Discussion Board](#) - to interact with the instructor and students.
- # [Dictionary](#) - English to Thai and Thai to English
- # [Web translator](#)
- # [English listening site](#)
- # [Free E-Mail](#)
- # [Web Evaluation](#)
- # [Download](#)



Heather MacTadyen H. (1995). Using English Verb Tenses. University of Ottawa.



Simple Past Tense

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Exercise2

Simple Past Form

Singular	Plural
<i>I flew</i>	<i>we flew</i>
<i>you flew</i>	<i>you flew</i>
<i>he flew</i>	<i>they flew</i>

The simple past tense is used to describe an action, an event, or condition that occurred in the past, sometime before the moment of speaking or writing. The following sentences are in the simple past tense and each sentence describes an action taking place at some point in past.

Examples

- My mother bought a kilo of oranges yesterday.
- We went to America last year.
- She did not go to school last Monday.
- Did you close the door?
- My father used to smoke cigarettes.



Simple Future Tense

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Exercise3

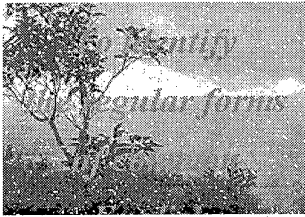
Simple Future Form

Singular	Plural
<i>I will (shall) fly</i>	<i>we will (shall) fly</i>
<i>you will fly</i>	<i>you will fly</i>
<i>he will fly</i>	<i>they will fly</i>

The simple future tense is used to refer to actions that will take place after the act of speaking or writing. Each of the verbs in the following sentences is in the simple future tense.

Examples

- I will go to Singapore next summer.
- She will wait until I come home.
- If it rains, I will not go shopping.
- I am going to go to Singapore next summer.
- Will you walk the dog tonight?



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Exercise4

Present Continuous Tense

Present Continuous Form

Singular	Plural
<i>I am flying</i>	<i>we are flying</i>
<i>you are flying</i>	<i>you are flying</i>
<i>he is flying</i>	<i>they are flying</i>

The present continuous tense describes the continuing nature of an act, event, or condition. The on-going nature of the action is emphasized by the use of the present continuous rather than the present simple.

Examples

- He is reading a newspaper right now.
- We are going to Australia next month.
- They are studying French this term.
- I am listening to a radio program.
- Are you working in the hospital?
- She is not dancing.



Past Continuous Tense

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Exercise 5

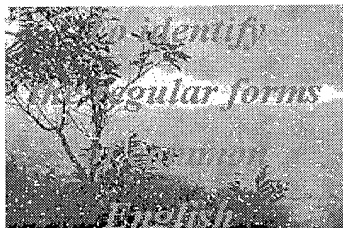
Past Continuous Form

Singular	Plural
<i>I was flying</i>	<i>we were flying</i>
<i>you were flying</i>	<i>you were flying</i>
<i>he was flying</i>	<i>they were flying</i>

The past continuous tense is used to describe actions ongoing in the past. These actions often take place within a specific time frame. While actions referred to in the present continuous tense have some connection to the present, actions referred to in the past continuous tense have no immediate or obvious connection to the present. The ongoing actions took place and were completed at some point well before the time of speaking or writing.

Examples:

- The children were sleeping at that time.
- The bus was moving when I jumped off.
- I was taking a bath when you were knocking at the door.



Future Continuous Tense

- Home
- Back
- Next



Exercise6

Future Continuous Form	
Singular	Plural
<i>I will (shall) be flying</i>	<i>we will (shall) be flying</i>
<i>you will be flying</i>	<i>you will be flying</i>
<i>he will be flying</i>	<i>they will be flying</i>

The future continuous tense is used to describe actions ongoing in the future. The future continuous tense is used to refer to continuing action that will occur in the future.

Examples

- By seven o'clock tomorrow I will be having breakfast.
- We will be studying French everyday next month.
- I will be working on the computer system for the next two weeks.
- We will be writing an exam every afternoon next week.
- The committee will be meeting every Wednesday morning.



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Exercise 7

Present Perfect Tense

Present Perfect Form

Singular	Plural
<i>I have flown</i>	<i>we have flown</i>
<i>you have flown</i>	<i>you have flown</i>
<i>he has flown</i>	<i>they have flown</i>

The present perfect tense describes action that began in the past and continues into the present or has just been completed at the moment of utterance. The present perfect is often used to suggest that a past action still has an effect upon something happening in the present.

Examples

- I have had my dinner.
- Our school has been built since 1964.
- She has been a teacher for 25 years.
- They haven' t finished their report yet.



Past Perfect Tense

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Exercise8

Past Perfect Form

Singular	Plural
<i>I had flown</i>	<i>we had flown</i>
<i>you had flown</i>	<i>you had flown</i>
<i>he had flown</i>	<i>they had flown</i>

The past perfect tense is used to refer to actions that took place and were completed in the past. The past perfect is often used to emphasize that one action, event or condition ended before another past action, event, or condition began.

Examples

- I had had my breakfast before I went to school.
- Prawit said, "I had failed the exam."
- Prawit said that he had failed the exam.
- If I had studied hard, I would have passed the test.



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Exercise9

Future Perfect Tense

Future Perfect Form

Singular	Plural
<i>I will (shall) have flown</i>	<i>we will (shall) have flown</i>
<i>you will have flown</i>	<i>you will have flown</i>
<i>he will have flown</i>	<i>they will have flown</i>

The future perfect tense is used to refer to an action that will be completed sometime in the future before another action takes place.

Examples

- I will have finished the housework by the time you get back.
- They will have graduated by 1989.
- Will you have written this book by next year ?
- The surgeon will have operated on 6 patients before she attends a luncheon meeting.



Present Perfect Continuous Tense

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Exercise 10

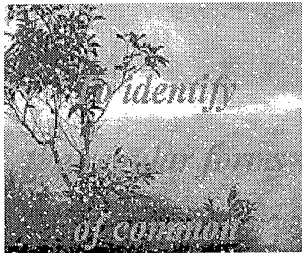
Present Perfect Continuous Form

Singular	Plural
<i>I have been flying</i>	<i>we have been flying</i>
<i>you have been flying</i>	<i>you have been flying</i>
<i>he has been flying</i>	<i>they have been flying</i>

The present perfect continuous tense is used to describe an action, event, or condition that has begun in the past and continues into the present. The present perfect continuous tense, however, is used to stress the on-going nature of that action, condition, or event.

Examples

- I have been waiting for 2 hours.
- Danai has been teaching in this school since 1980.
- Choojit has been cleaning her room for an hour.
- That dog has been barking for three hours; I wonder if someone will call the owner
- They have been publishing this comic book for ten years.



Past Perfect Continuous Tense

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Exercise 1

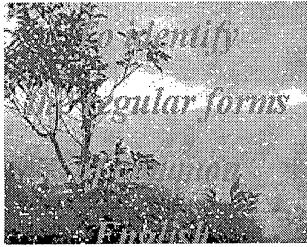
Past Perfect Continuous Form

Singular	Plural
<i>I had been flying</i>	<i>we had been flying</i>
<i>you had been flying</i>	<i>you had been flying</i>
<i>he had been flying</i>	<i>they had been flying</i>

The past perfect continuous tense is used to indicate that a continuing action in the past began before another past action began or interrupted the first action.

Examples

- He had been driving for two hours when he had an accident.
- They had been talking for over an hour before Tom arrived.
- A construction crew had been digging one pit after another in the middle of my street for three days before they found the water main.
- By the time the meeting is over, the committee will have been arguing about which candidate to interview for three hours.



Future Perfect Continuous Tense

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Exercise12

Future Perfect Continuous Form

Singular	Plural
<i>I will (shall) have been flying</i>	<i>we will (shall) have been flying</i>
<i>you will have been flying</i>	<i>you will have been flying</i>
<i>he will have been flying</i>	<i>they will have been flying</i>

The future perfect continuous tense is used to indicate a continuing action that will be completed at some specified time in the future.

Examples

- By eleven o'clock tomorrow I will have been playing tennis.
- By August next year I will have been teaching for 9 years.

APPENDIX B
CAI EXERCISES

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Exercise 1

Choose the correct answer for the simple present tense.

[<=>](#) 1/5 [=>](#)

Tim always _____ to the church on Sunday.

- A** gone
- B** go
- C** goes
- D** went

Exercise 2

Choose the correct answer for the simple past tense.

<= 1/10 =>

We are too late. The plane _____ off five minutes ago.

- A will take
- B takes
- C to take
- D took

Exercise 3

Choose the correct answer for the simple future tense.

<= 1/10 =>

She _____ the book back next week.

- A brings
- B has brought
- C will bring
- D brought

Exercise 4

Write the correct form of verbs given in the brackets into the present continuous tense.

1. He (live) with his cousin in Bangkok.
2. They (play) football in the field.
3. She (go) to Japan now.
4. I (read) this book now.
5. Be careful ! the car (come) very fast.
6. Listen ! who (knock) at the door?
7. I (wait) for my letter now.
8. Are you (go) to the school now?
- 9 I (do) my homework now.
10. They (listen) to the radio.

Check

Exercise 5

Write the correct form of verbs given in the brackets into the past continuous tense.

1. I (read) this book, when she came in.
2. He (drive) when the accident occurred.
3. When you telephoned, I (watch) television last night.
4. They (play) football, when I saw them yesterday.
5. My mother was cooking while (play).
6. I (do) my homework at 7 pm. yesterday.
7. He (write) his letter at this time yesterday.
8. She was singing while I (sweep) the floor.
9. The train (move) when I jumped off.
10. The baby (sleep) at that time.

Check

Exercise 6

Write the correct form of verbs given in the brackets into the future continuous tense.

1. When your bus arrives tonight, I will (wait) for you.
2. I will (do) my homework when you arrive tonight.
3. He will (study) at home when she comes back.
4. At midnight tonight, we will (drive) through the desert.

5. While Ellen is reading, Tim will (watch) television.
6. Tonight, they will (eat) dinner.
7. At 8:00 PM tonight, Susan will be (watch) the dog.
8. By nine o'clock tomorrow, I will be (have) breakfast.
9. I will (work) hard everyday next week.
10. At this time tomorrow, I will (study) at the library.

Exercise 7

Choose the correct answer for the present perfect tense.

[<=](#) 1/10 [=>](#)

_____ you ever _____ a Japanese in this town?

- [A](#) Do, met
- [B](#) Have, met
- [C](#) Has, met
- [D](#) will, met

[Back](#)[Go to Contents](#)[Next Exercise](#)

Exercise 8

Choose the correct answer for the past perfect tense.

<= 1/10 =>

She _____ for two hours when I called her.

- A have slept
- B is slept
- C has sleep
- D had slept

Exercise 9

Choose the correct answer for the future perfect tense.

[<=](#) 1/10 [=>](#)

They _____ the work by next week.

- A finish
- B will have finished
- C will have finishes
- D will had finished

Exercise 11

Write the correct form of verbs given in the brackets into the past perfect continuous tense.

They (wait) for ten minutes before I arrived.

Jenny (work) there for two years before she moved to Thailand.

He told me that he (study) very hard.

We (talk) about repainting the front room for three days and last night we finally bought the paint.

Exercise 12

Write the correct form of verbs given in the brackets into the future perfect continuous tense.

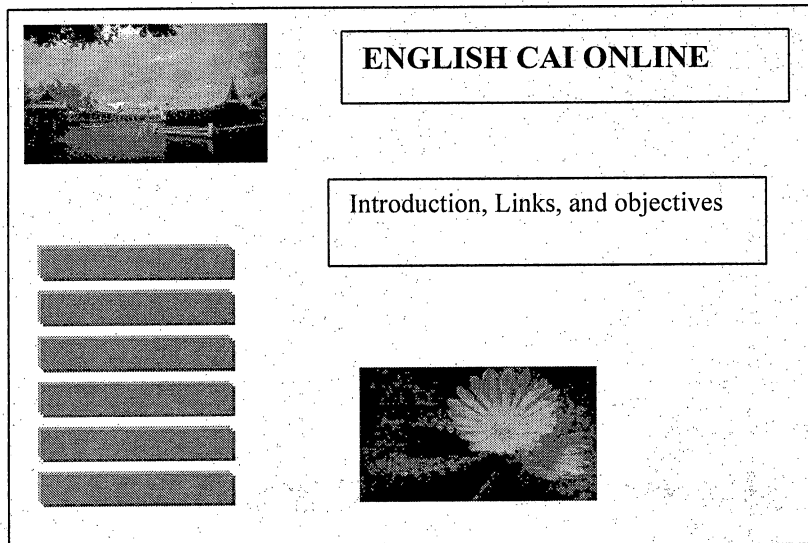
They will been (build) the house by next years.
In ten minutes, I have been (wait) for you for two hours.

She will have been (read) this book for two days before she can do the exercises.

By the end of this month, he will have (live) here for two years.

Next week, I will been (study) English at this school for three months.

APPENDIX C
WEB STORYBOARD



Background: Rice Paper

Graphic/Animation: Java Applet

Marquee "Welcome to our English online home page"

Sound/Music: Moon midi as background

Special Effect: Java Applet (snow)


Content: The purpose of this CAI web site is to create a simple and interactive English learning environment for adult students at Warin DNFE center, Thailand. This web site not only provides the students with various types of interactive exercises, but also provides them with many other different resources to facilitate learning the English language. Some of the learning resources include: discussion boards, dictionaries, web translators, English listening lounges, and free email services.

Objectives: To identify the regular forms of common English verb tenses.

To use the verb tenses correctly.

Page 2 Content Page


Sub Title: Simple Present Tense



Singular	Plural
I fly	We fly

Content:

[Home](#)
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[Exercise](#)

Background: Rice Paper

Graphic/Animation: Picture

Sound/Music: Background music

Form: Singular- I fly, you fly, he flies
Plural – We fly, you fly, and they fly

Content: The simple present tense is used to describe an action, an event, or condition that is occurring in the present. The present simple is also used to express facts habit, customs, command, request, and proverb.

Examples

- The sun rises in the east. (Facts)
- I always go to school at 7.00. (Habit)
- We have a holiday on Christmas Day. (Customs)
- Repeat after the teacher. (Command)
- Please open the window. (Request)
- Prevention is better than cure. (Proverb)

Sub Title: Simple Past Tense



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Exercise

Singular	Plural
I flew	We flew

Content:

(JCloze: fill-in exercise using Hot Potatoes software)

Background: Rice Paper

Graphic/Animation: Picture

Sound/Music

Form: Singular – I flew, you flew, he flew
Plural – we flew, you flew, they flew

Content: The simple past tense is used to describe an action, an event, or condition that occurred in the past. The following sentences are in the simple past tense and each sentence describes an action taking place at some point in past.

Examples

My mother bought a kilo of oranges yesterday.

We went to America last year.

She did not go to school last Monday.

Did you close the door?

My father used to smoke cigarettes

Sub Title: Simple Future Tense



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Exercise

Singular	Plural
I will (shall) fly	We will (shall) fly

Content:

Exercise: (JBC Multiple choice exercise using Hot Potatoes software)

Background: Rice Paper

Graphic/Animation: Picture

Sound/Music: Background music

Form: Singular – I will (shall) fly, you will fly, he will fly
Plural – we will (shall) fly, you will fly, they will fly

Content: The simple future tense is used to refer to actions that will take place at some definite future time.

Examples

- I will go to Singapore next summer.
- She will wait until I come home.
- I will not go shopping tomorrow.
- I am going to go to Singapore next summer.
- Will you walk the dog tonight?

Sub Title: Present Continuous Tense



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Exercise

Singular	Plural
I am flying	We are flying

Content:

Exercise: (JBC Multiple choice exercise using Hot Potatoes software)

Background: Rice Paper

Graphic/Animation: Picture

Sound/Music: Background music

Form: Singular – I am flying, you are flying, he is flying

Plural – we are flying, you are flying, they are flying

Content: The present continuous tense describes the continuing nature of an act, event, or condition. The on-going nature of the action is emphasized by the use of the present continuous rather than the present simple.

Examples:

- He is reading a newspaper right now.
- They are studying French this term.
- I am listening to a radio program.
- Are you working in the hospital?
- She is not dancing.

Sub Title: Past Continuous Tense



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Exercise

Exercise: (JBC Multiple choice exercise using Hot Potatoes software)

Singular	Plural
I was flying	We were flying

Content :

Background: Rice Paper

Graphic/Animation: Picture

Sound/Music: Background music

Form: Singular – I was flying, you were flying, he was flying
Plural – We were flying, you were flying, they were flying

Content: The past continuous expresses an activity that was happening at a specific point of time in the past or at the time of another action

Examples:

- The children were sleeping at that time.
- The bus was moving when I jumped off.
- I was taking a bath when you were knocking at the door.

Sub Title: Future Continuous Tense



Form / Content

Singular	Plural
I will (shall) be flying	We will (shall) be flying

Content:

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Exercise

(Jcloze fill-in exercise using Hot Potatoes software)

Background: Rice Paper

Graphic/Animation: Picture

Sound/Music: Background music

Form: Singular – I will (shall) be flying, you will be flying, he will be flying

Plural – we will (shall) be flying, you will be flying, they will be flying

Content: The future continuous tense describes an action in that will be in progress at a specific time in the future.

Examples:

- By seven o'clock tomorrow I will be having breakfast.
- We will be studying French everyday next month.
- I will be working on the computer system for the next two weeks.
- We will be writing an exam every afternoon next week.
- The committee will be meeting every Wednesday morning.

Sub Title: Present Perfect Tense



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Singular	Plural
I have flown	We have flown

Content:



Exercise

(JBC Multiple choice exercise using Hot Potatoes software)

Background: Rice Paper

Graphic/Animation: Picture

Sound/Music: Background music

Form: Singular – I have flown, you have flown, he has flown.
Plural – We have flown, you have flown, they have flown

Content: The present perfect tense describes action that began in the past and continues into the present or has just been completed at the moment of utterance.

Examples:

- I have had my dinner.
- Our school has been built since 1964.
- She has been a teacher for 25 years.
- They haven' t finished their report yet.

Sub Title: Past Perfect Tense



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Exercise

(JBC Multiple choice exercise using Hot Potatoes software)

Singular	Plural
I had flown	We had flown

Content:

Background: Rice Paper

Graphic/Animation: Picture

Sound/Music: Background music

Form: Singular – I had flown, you had flown, he had flown
Plural – We had flown, you had flown, they had flown

Content: The past perfect tense refers to actions that took place and were completed in the past. The past perfect is often used to emphasize that one action, event or condition ended before another past action, event, or condition began.

Examples:

- I had had my breakfast before I went to school.
- The elephant had eaten all the hay so we fed it oats for a week.
- Prawit said that he had failed the exam.
- If I had studied hard, I would have passed the test.

Sub Title: Future Perfect Tense



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Singular	Plural
I will (shall) have flown	We will (shall) have flown

Content:

Exercise

(JBC Multiple choice exercise using Hot Potatoes software)

Background: Rice Paper

Graphic/Animation: Picture

Sound/Music: Background music

Form: Singular – I will (shall) have flown, you will have flown, he will have flown
Plural – We will (shall) have flown, you will have flown, they will have flown

Content: The future perfect tense refers to an action that will be completed sometime in the future before another action takes place.

Examples:

- I will have finished the housework by the time you get back.
- They will have graduated by 1989.
- Will you have written this book by next year?
- The surgeon will have operated on 6 patients before she attends a luncheon meeting.

Sub Title: Present Perfect continuous Tense



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Exercise

Singular	Plural
I have been flying	We have been flying

Content:

(Jmix exercise using Hot Potatoes software)

Background: Rice Paper

Graphic/Animation: Picture

Sound/Music: Background music

Form: Singular – I have been flying, you have been flying, he has been flying
Plural – we have been flying, you have been flying, they have been flying

Content: The present perfect continuous tense describes an action, event, or condition that has begun in the past and continues into the present. The present perfect continuous tense, however, is used to stress the on-going nature of that action, condition, or event.

Examples

- I have been waiting for 2 hours.
- Danai has been teaching in this school since 1980.
- Choojit has been cleaning her room for an hour.
- They have been publishing this comic book for ten years.
- That dog has been barking for three hours; I wonder if someone will call the owner

Sub title: Past Perfect continuous Tense



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Exercise

Singular	Plural
I had been flying	We had been flying

Content:

(Jcloze fill-in exercise using Hot Potatoes software)

Background: Rice Paper

Graphic/Animation: Picture

Sound/Music: Background music

Form: Singular – I had been flying, you had been flying, he had been flying

Plural – We had been flying, you had been flying, they had been flying

Content: The past perfect continuous tense indicates a continuing action in the past began before another past action began or interrupted the first action.

Examples

- He had been driving for two hours when he had an accident.
- They had been talking for over an hour before Tom arrived.
- A construction crew had been digging one pit after another in the street for three days before they found the water main.

Sub title: Future Perfect continuous Tense



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Exercise

Singular	Plural
I will (shall) have been flying	We will (shall) have been flying

Content:

(Cloze fill-in exercise using Hot Potatoes software)

Background: Rice Paper

Graphic/Animation: Picture

Sound/Music: Background music

Form: Singular – I will (shall) have been flying, you will have been flying, he will have been flying

Plural – We will (shall) have been flying, you will have been flying, they will have been flying

Content: The future perfect continuous tense indicates a continuing Action that will be completed at some specified time in the future.

Examples

- By eleven o'clock tomorrow I will have been playing tennis.
- By August next year I will have been teaching for 9 years.
- By the time the meeting is over, the committee will have been arguing about which candidate to interview for three hours.

APPENDIX D
WEB SURVEY EVALUATION

Web Survey Evaluation

Web Evaluation

Please answer the following questions.

What do you think about this web site?

Excellent

Good

Fair

Poor

Rate how well the content served your learning need?

Excellent

Good

Fair

Poor

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Web Evaluation

Rate how well the exercises helped you increase your understanding of English verb tenses?

- Excellent
- Good
- Fair
- Poor

Rate how convenient learning on the Internet with this CAI was?

- Excellent
- Good
- Fair
- Poor

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Web Evaluation

Rate how well the exercises helped you increase your understanding of English verb tenses?

- Excellent
- Good
- Fair
- Poor

Rate how convenient learning on the Internet with this CAI was?

- Excellent
- Good
- Fair
- Poor

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Web Evaluation

Rate how well you felt the web (CAI) was designed?

- Excellent
- Good
- Fair
- Poor

Rate how well this web site enhanced your learning of English?

- Excellent
- Good
- Fair
- Poor

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Web Evaluation

Rate how well you felt the web (CAI) was designed?

- Excellent
- Good
- Fair
- Poor

Rate how well this web site enhanced your learning of English?

- Excellent
- Good
- Fair
- Poor

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