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Online storybook as a facilitator for english as a second language learning

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ONLINE STORYBOOK AS A FACILITATOR FOR ENGLISH

AS A SECOND LANGUAGE LEARNING

A Project

Presented to the

Faculty of

California State University,

San Bernardino

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts

in

Education:
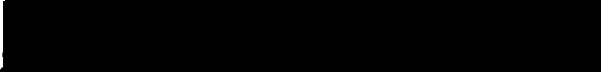
Instructional Technology

by

Pei-Chen Tsai

September 2003

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Approved by:

_____   _____
Eun Ok Baek, Ph.D., First Reader   Date

_____
Amy Leh, Ph.D., Second Reader

ABSTRACT

Internet is a communication way beyond the limit of
time and space. The application of online learning is the
direction of the future. Effectiveness of using technology
for language learning has long been an issue of great
concern and challenge for the academic community. This
project reviews the literature of related works on issues
of language learning theories, the relationship between
language (especially English) learning and technology, and
the benefits of integrating hypermedia in language
learning. Moreover, this project presents a model of
online language learning material-an online storybook for
ESL learning, with the hope to create a more
learner-centered language-learning environment for ESL
learners.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER ONE

INTRODUCTION

The use of technology, specifically multimedia, for foreign language instruction has expanded rapidly during the last two decades. Studies of the effect of technology-enhanced instruction on achievement and studies of student attitudes regarding learning with technology have also increasingly been reported (Salaberry, 2001). However, a majority of digital language learning materials available now is designed for instructors such as teachers or parents, not for the learners themselves. Such CAI (Compute-assisted instruction) or CALL (Computer-assisted language learning) software or tools are useful for teaching. Nevertheless, wouldn't it be more beneficial if there were a tool that helps the learners to acquire the target language naturally at their own pace?

This project was meant to explore the possibility and usability of an online storybook being used as a language learning material for people who want to start learning a foreign language.

Purpose of the Project

The purpose of this project was to develop an online storybook as an ESL (English as a second language) or EFL

(English as a foreign language) learning facilitator for beginning English learners. As ESL learning becomes increasingly important in non-English speaking countries, a better way for ESL learners to acquire the second language would be in great demand. It is believed that learning a second language through a natural way would be most productive and effective; On the other hand, as the Internet and WWW has become a powerful learning tool, it would be even more effective to combine English learning with hypermedia. Therefore, the project was focused on presenting an online storybook for ESL learners at entry levels to familiar themselves with English vocabularies and sentences naturally through reading stories, or listening to stories read by instructors, and doing online interactive activities.

Significance of the Project

Various English learning materials, digital or not, are available in the market nowadays. People who are interested in learning English as a second language may choose from traditional books, multimedia software such as CD-ROM, VCD or DVD, or they can go to the Internet and find thousands of English learning related websites. The significance of the project was because it was designed to

help English learners acquiring this new language naturally through using or playing with the product of the project, while teachers or parents are playing the role of coaches who give assistance only when needed. That is, to construct an online, learner-centered English learning material with the hope to enhance ESL or EFL learning.

Limitations and Delimitations

During the development of the project, a number of limitations and delimitations were noted. These limitations and delimitations are presented in the next section.

Limitations

The following limitations apply to the project:

1. Owing to the bandwidth of Internet connection, the quality and accessibility of loading the online storybook may affect the interactivity and convenience of using the online storybook.

2. To narrow down the scope of this project, the focus was mainly on helping to gain the literacy in reading and alphabet familiarization, though the concept of the whole project should also apply to other aspects of language-learning skill (e.g. writing, listening, speaking, etc.).

Delimitations

The following delimitations apply to the project:

1. To be more specific and to narrow down the scope of study, the target language mentioned in the project was English exclusively, and the learners were children aged from five to ten, who began to learn English at an entry level.

2. In this project, the online storybook was specially designed for children whose mother tongue are Mandarin.

3. For the purpose of this project, the online storybook is to be used at home as a supplement English learning material for children. Consider of the fact that some young children may not have the ability to manipulate the computer; parents may need to assist on this part.

Definition of Terms

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

Bandwidth - Bandwidth is used to mean (1) how fast data flows on a given transmission path, and (2), somewhat more technically, the width of the range of frequencies that an electronic signal occupies on a

given transmission medium. Any digital or analog

signal has a bandwidth.

CALL - Computer-assisted language learning.

CAI - Computer-assisted instruction

ELL - English language learners.

EFL - English as a foreign language.

ESL - English as a second language.

Hypertext Markup Language (HTML) - The set of markup

symbols or codes inserted in a file intended for

display on a World Wide Web browser page.

Hypermedia - A computer-based information retrieval system

that enables a user to gain or provide access to

texts, audio and video recordings, photographs, and

computer graphics related to a particular subject.

Hypertext - A computer-based text retrieval system that

enables a user to access particular locations in web

pages or other electronic documents by clicking on

links within specific web pages or documents.

Usability - Usability is the measure of a product's

potential to accomplish the goals of the user. In

information technology, the term is often used in

relation to software applications and Web sites, but

it can be used in relation to any product that is

employed to accomplish a task.

<u>World Wide Web</u> (WWW) - A computer network consisting of a

    collection of Internet sites that offer text and

    graphics and sound and animation resources through

    the hypertext transfers protocol.

CHAPTER TWO

REVIEW OF THE LITERATURE

An obvious advantage of knowing more than one language is having expanded access to people and resources. Individuals who speak and read more than one language have the ability to communicate with more people, read more literature, and benefit more fully from travel to other countries (Marcos, 2001). Since English is the most popular used language all around the world nowadays, many countries have listed English as the number one foreign language to learn. In Taiwan, English learning materials have long been a major market for educational media companies. As the rapid development of hypermedia, integrating technology, especially WWW, is becoming a mainstream in the world of English learning.

The project will discuss the benefits and the need of a learner-centered English learning material from different points of view: the nature of language learning, benefits of technology-based learning environment, and the relationship between hypermedia-based individualized learning environment and English learning.

The Natural Way to Learn a Language

Although people can learn languages at any age, some studies suggest that children who learn a language before adolescence are more likely to attain native-like pronunciation (Harley, 1986; Patknowski, 1991). A number of researchers have found that children have an innate ability to acquire the rules of any language, and that this ability diminishes by adulthood (Curtiss, 1995; Johnson & Newport, 1989).

One of the most widely discussed trends in language arts education today is the movement of "whole language" (Eldredge, 1991). As claimed by Eldredge (1991), Children's own language productions are used to help them make the transition from oral to written language. In addition to using children's written products for reading, literature books are widely used in whole language classrooms. Literacy instruction is organized around themes or units of study that are of interest to students (Eldredge, 1991).

Children and adults use similar strategies to read and spell. Whole language believers assert that children process print and comprehend it like model of adult literacy and modeling is a method for teaching children. Thus, reading aloud and pointing to the print in a big

book as children follow along is encouraged. Children are expected to figure out for themselves the connection between the letters and the sounds of the vocabularies as the adult points to them (Moats, 2000).

All language is naturally acquired, according to whole language devotees (Moats, 2000). Children's brains are focused on meaning, as language is processed, not on the structure of form of language. To focus instead on structure and form is unnatural and unnecessary. Children will extract the structure and form of print if they are exposed to it sufficiently in the context of meaning-making activities, just as they have extracted the rules of phonology and syntax in oral language without any formal instruction.

Natural learning is playful, incidental, and easy. Phoneme awareness will happen if children play rhyming games; spelling will happen if children write; word recognition will happen if children follow the print as the adult reads; and comprehension will happen if children's curiosity is picked (Moats, 2000).

Whole language is a language art theory based on "learner-centered" and "constructivism." It highlights the importance that children, as a "holistic learner," should acquire their language abilities from a "whole context."

Children should learn a language naturally from the context, not the structure and the form. They should construct their own insights into language. The skilled whole language teacher is coach, model, and guide. It is unimportant to teach strategies for reading single words out of context. According to whole language doctrine, the point of reading is not to read individual words; it is to understand connected text.

The concept of natural acquisition and learner-centered also apply to second language learning. According to the whole language ideas, using pictures and icons help language learners to link the letter or vocabulary with the sound or its meaning. Thus, many English teachers in Taiwan are trying to teach children English in a natural way. In addition to create an almost "whole English" environment, they make use of a lot of pictures, storybooks and other tools to evoke children's interest and ability in learning English.

Using icons to represent words is an effective way for children to understand what the word means, and then to memorize it. With the aided of sound, it is even more advantageous for children to learn the new vocabulary. This also corresponds to the "natural learning" view of whole language approach.

Benefits of Technology-based
Learning Environment

The most widely used learning media of the past century is the book. However, the digital computer is now challenging that position. Technology has promised smarter, happier, better educated, and more fulfilled learners. Technology has always been zealously promoted as a modern solution for the problems of education-lack of productivity, inefficiency, and lack of focus (Jonassen, 2000).

People are by no means similar. Not only do they differ in age, but also they differ in almost every other conceivable measure that we can think of. They differ too in many ways that we still do not understand as far as learning is concerned (Bork, 1987).

The book is the dominant delivery mechanism for learning even today without question, but now there is a challenger, the computer. As the improvement and development of both computer hardware and software, the role of computers in teaching and learning is getting important. Of course, technology has great impact on teaching and learning in the modern society.

A number of benefits for learners related to the general use of technology in learning have been reported.

These include increased motivation, improvement in self-concept and mastery of basic skills, more learner-centered learning and engagement in the learning process, and more active processing, resulting in higher-order thinking skills and better recall (Brownlee-Conyers, 1996; Dwyer, 1996; McGrath, 1998; Weiss, 1994). Learners also appear to gain confidence directing their own learning.

The computer can make the learning process an active experience for every individual. The computer engages in a conversation with the learner, constantly asking the learner to respond, to play an active role in the learning process. The second of these two important advantages for learning with computers is individualization. The book is the same for everyone, making no allowances except in very general ways for different learner backgrounds, interests, or other factors. With the computer, however, we can individualize learning so that each learner receives information specific to that learner's need.

These two factors do no exhaust the benefits of the computer. The computer offers new and unique control over space and time (Bork, 1987). With the computer, learners can adjust their learning progress freely as needed. They can arrange their time and pace according to their own

will. Moreover, with the WWW, the scope of learning becomes almost unlimited. The flexibility the computer has regarding to space and time is far beyond the book can reach.

Undoubtedly, in many environments, both traditional and technology-based learning will continue to be used. However, it should be clear that relative advantages of computers in learning would become increasingly apparent.

<center>Hypermedia-based Learning Environment
and English Learning</center>

Hypermedia can best be described as a technology tool for accessing information in a media-rich environment. This multidimensional environment allows users to access information in a nonlinear, self-tailored fashion.

Grabe stated the following:

> Hypermedia may represent a superior learning environment because it is similar in structure to human memory (nonlinear presentation of ideas, multiple linkages among ideas, potential to represent ideas using several different formats). A variation on this theme suggests that having students create hypermedia materials requires them to relate images, ideas, and units of meaning similarly to the actual organization of long-term memory. In other words, the creation of hypermedia is also a useful way to encourage students to search out appropriate relationships among the units of information they are studying. (2001, p. 61)

<center>13</center>

The power of hypermedia applications is evidenced as we examine three inherent characteristics (Collier, 1987):

Printed knowledge is inherently linear and often has arbitrary ordering forced on it by the print medium. Hypermedia systems eliminate such constraints in the presentation of information, allowing users to browse more freely through a data structure.

Links between and among concepts enable semantically and logically related information to be tied together in conceptual webs. Using this representational architecture allows hypermedia systems to mirror some of the associational power of human memory.

Linear information systems support only part of the potential web of interconnections since authors choose which interconnections to present based on a hypothetical typical user. Since the prior knowledge, experiences, and learning style of all potential readers are idiosyncratic, many users fail to adequately transfer desired information into their cognitive structures. Hypermedia, on the other hand, holds the potential for users to access tools by which they can construct personalized transitions between the information to be accessed and their cognitive structure. This feature has the potential for individualizing the information environment.

Much of the discussion about the potential impact of hypermedia has centered on ways that such systems may become infused into our learning strategies. Current applications tend to focus on the presentation of information; a few wrestle with the challenges of representing information in an advanced storage and retrieval system. Some developers are proposing a next generation of hypermedia that will target the construction of knowledge.

A key claim of hypermedia proponents is that these systems will be effective as a learning medium: Users can access a large knowledge base and seek out information that meets their particular needs in terms of both their prior knowledge and their preferred learning style. However, simply providing an advanced presentation system, or even a more elaborate information storage and retrieval system that parallels the way the human brain represent knowledge, does not guarantee that more effective or efficient learning will occur (Locatis, Letourneau, & Banvard, 1989).

A more constructivist environment--where the users not only browse the information but also has the ability to build additional nodes and links-holds more promise to promote learning.

15

One key to such environment is the level of interactivity promoted by the system. While a system that provides the user with a choice of direction in terms of information, presentation does promote some level of user control, and therefore interactivity, such interaction is focused at a very basic level. On the other hand, a system that also challenges the user to actively connect information to other nodes, to add additional information, and even to question and/or extend the relationships defined by the hypermedia designer, provides a much higher level of interactivity.

The ability to individualize information access to accommodate the diversity of possible users has traditionally been strength of instructional technology. As we continue to evolve toward a diverse worldwide village, developing single-mode instruction designed for the needs of a typical learner is increasingly ineffective. Technologies that can individualize to the multiple, wide-ranging differences inherent in the global marketplace are needed (Bermudez & Palumbo, 1994).

A crucial, and yet often neglected, aspect of effective information transfer is ascertaining and accommodating users' learning style (Ausubel, 1968). Research suggests that learners who learned by their

preferred method achieved better, were more interested in the subject matter, linked the way the subject was taught, and wanted other instructional situations to be taught in a similar manner (Smith & Renzulli, 1984). Matching the presentation style of the information with the desired learning style of the learner enhances cognitive outcomes and encourages learners to become more involved in the learning process.

Krashen (1982) emphasizes that we acquire language by "going for meaning." He suggests that language is acquired when we provide the learner with input + 1 - being the additional comprehensible information, or input, that allows the learner to expand his or her knowledge base in the new language because it is beyond the learner's current stage of second language development. This has implications for CALL (computer-assisted language learning) since content presented through hypermedia is authentic and natural. It provides input + 1 when the content presented via the Web site is meaningful, comprehensible, and relevant to the learner.

Cummins (1998) suggests that the more target language text learners read and comprehend the more of the target language they learn. Cummins asks, "If the research on extensive reading is as effective as indicated, then why

is it not used more in second language teaching?" He recommends that with the advancement of technology, there are many possibilities for encouraging ELLs (English language learners) to read and acquire language by using technology.

Hypermedia features suggest that this system has potential to address linguistic idiosyncrasies in learning. In particular, the medium provides support for the necessary conditions needed to be met for language acquisition to take place. Namely, providing a common and concrete task; emphasizing problem solving, critical thinking, and social interaction; ensuring opportunities for learners to relate concepts in unique ways; presenting all the language skills in a concurrent fashion; and attending to the various learning modalities exhibited by learners.

Summary

The development of hypermedia-based language learning activities or materials is sure to continue to be an exciting and growing field. While computer programmers, instructional designers, and computational linguistics steadily push the extremes of the field, language

instructors or parents can choose a learner-centered
learning material for the learners.

A learner-centered language-learning supplement not
only evokes learners' interest in learning a new language,
but also helps them to get involved in the language in a
more natural way on their own space. With more
interactivity and flexibility, learning a second language
through an online facilitator is expected to be much more
effective than ever before.

CHAPTER THREE

DESIGN

Analysis

Need Analysis

Since the project was designed mainly for ESL
learners in Taiwan, a data collection (refer to Appendix A)
was done concerning the most popular ESL materials now
available here. According to the result, most materials
found here did consist of multimedia parts and paper parts.
However, the "multimedia" only referred to CD-Roms. In
other words, online ESL materials were limited and not
popular here.

Learner Analysis

Learners for this project referred to children aged
five to ten. Children among this age group have the
following characteristics, according to Scott and Ytreberg
(1990):

- They can talk about what they are doing.

- They can tell you what they have done or heard.

- They can use logical reasoning.

- They can use their vivid imaginations.

- They can use a wide range of intonation patterns
  in their mother tongue.

- They ask questions all the time.

- They are able to make decisions of their on learning.

- They understand abstracts and symbols (beginning with words.)

Children during this stage were quick in learning a second language, and therefore were assumed (in this project) to benefit more from an online self-learning mode of ESL learning.

Task Analysis

Since the target audiences for this project was set to children aged from five to ten, and one of the purposes was to evoke children's interest in learning English as a second language, interesting and educational would be two major factors to consider while creating the online storybook. An ideal online storybook would be interactive, animated and user-friendly, so that children wouldn't be discouraged from technical difficulties.

Design

As stated in chapter two, printed knowledge is inherently linear and often has arbitrary ordering while hypermedia systems eliminate such constraints and allow users to browse more freely through a data structure.

Users can access a large knowledge base and seek out information that meets their needs. With an interactive based technology, there are more possibilities for encouraging ELLs to read and acquire language through technology.

In addition, linking an image to its name helps children to relate concepts in a better way (Lin, 2002). These formed the basic concept of this project: Utilizing the non-linear feature of the hypermedia to help children building a second language in an interactive way; using an icon to replace the key word in target language to help children linking the word and its image, so as to intensify their impression of the word through reading and practicing.

The website was created using the website authoring tool Microsoft FrontPage 2002. Since the main purpose of this website is to demonstrate the online ESL learning model, it was developed in an as simple as possible manner. In the homepage, a brief purpose statement was presented (appendix B.01).

In the "Storybook" section, more introduction and directions of use were presented (Appendix B). In the "Survey" section, a questionnaire was used to collect

feedbacks from the users. The users had the option to participate in the survey or not (Appendix C).

1. Lesson pages (Appendix D):

   The major component of the project, the ESL learning model, was created using animation software Macromedia Flash 5 and then exported as web pages (.htm). The advantage of Macromedia Flash 5 as an online learning tool is that developers may use it to create animation web components and interactive components. For advanced Flash programmers, it is even better to make interesting games for children to supplement their learning.

Development

Structure of the Online Storybook Website

The tool used to develop this part was Microsoft FrontPage.

1. Homepage: A brief introduction of the website.

2. Author section: Some information about the webmaster/ the author of the project.

3. Storybook section: The main content of this learning website. It contains an introduction of the online storybook, the directions of using

the storybook, and four demo lessons. Detail of the lessons follows in next paragraph.

4.   Survey section: A questionnaire to collect feedbacks from the website users.

Structure of the Lessons

The tool used to develop this part was Macromedia Flash.

1.   Lesson One: Presents the learning objectives of the following lessons and helps the learner to be familiar the keywords to be learned. There are four icons in the story; each of them represents a corresponding English vocabulary. For example, the dog icon represents the word "dog." In the following lessons, the keywords (dog, cat, duck, and crow) would not appear in the story. The icons would replace them. The learner would get familiar with the four keywords to learn in lesson one and then in the following lessons, they would see the icons repeatedly and then learn the vocabularies naturally.

2.   Lesson Two: Combined visual and audio functions of Macromedia Flash to slowly present the story word by word. It helped the learner to be

accustomed to English pronunciation gradually. The purpose was to help the learner be familiar with listening to English and intensify their impression of the four keywords.

3. Lesson Three: This lesson was similar to the previous one. The difference was that in this lesson, the story was read in a normal pace and tone. After finishing lesson one and two, the learner was expected to identify the four icons in English. This lesson would again intensify their knowledge on the four keywords. Moreover, learners would be familiarized themselves with the normal pace of English reading.

4. Lesson Four: The very last lesson of this demo program was designed for learners who have learned the four keywords after finishing the previous lessons. There was no audio assistance in this lesson. Adults may need to coach the learners to practice reading the story by themselves. In addition, the four keywords were no longer replaced by their corresponding icons. The learners were expected to recognize the four English vocabularies at this stage.

There were backward and forward buttons in each lesson. Learners might use the buttons to replay the lesson repeatedly, or to jump to any lesson as necessary.

Implementation

After constructing and testing the website, the author published it to the WWW. The website was open to any individual on the Internet. Feedbacks are not required for the evaluation. People who would like to participate in the survey would need to provide some personal information. However, due to the risk that people might provide fake information, the result of the survey would only be used for future improvement of the website, not for the evaluation of this program.

Evaluation

Qualitative evaluation was employed in this project. The evaluation consisted of two parts: observation and survey.

1. Observation:

    Participant A:

    Vickie Chen (pseudonyms), 8 years old, recognizes English letters from A to Z.

    Participant B:

    Sara Chiu (pseudonyms), Vickie's mother, as her

coach here.

Observer:

Pei-Chen Tsai

step 1: The observations were done at the laboratory of the elementary where Vickie goes. Sara is the teacher at the same school too. The observer did not direct or gave any assistance in the process. Please refer to Table 1 for the record of the observation.

Step 2: At the end of the observation, the observer interviewed the two participants individually using the same questionnaire which was used on the website.

2. Survey:

A questionnaire was designed and attached as part of the project website. People who use this website can choose either to submit the form or not. The purpose of this questionnaire was to collect feedbacks from the users so that more improvements could be made based on the feedbacks.

3. Findings

The whole testing and observation process took two hundred minutes in total. The participant

(Vickie) spent 120 minutes to learn the four

target vocabularies. While other texts of the

story were difficult for the participant to

learn, the result did meet the purpose of the

project.

Table 1. Observation Record

Day 1	1. Before the observation started, Sara spent fifteen minutes getting used to the manipulation of the website.
	2. In the following ten minutes, Sara briefly explained (in Mandarin) to Vickie how to use the buttons in the website and the story she was going to read in the lessons.
	3. Vickie started playing with the buttons of the website for around five minutes and then entered lesson one.
	4. Vickie spent the last 10 minutes on lesson one and seemed to be interested in the animated icons. No vocabularies were learned today.
Day 2	1. Vickie spent ten minutes refreshing her memory about how to use the buttons and the content of lesson one and then went on to lesson two.
	2. Vickie replayed lesson two for four times and then started to follow and imitate the voice she heard.
	3. The first vocabulary Vickie was able to recognize and pronounce was dog. At the end of the testing of the day, she was able to recognize the words dog, cat, and duck. Total time spent was 35 minutes. In the process, Vickie replayed lesson two another five times.
Day 3	1. Vickie started from lesson two. She seemed to forget the words duck at the beginning. After replayed the lesson twice, she picked it up. It took her ten minutes.
	2. Vickie replayed lesson two another three times and could pronounce the word "crow" correctly.
	3. Sara asked Vickie to replay lesson two again and read the target vocabularies out when their corresponding icons popped up. Vickie successfully recognized and pronounced the vocabularies.

Day 4	1. Vickie practiced lesson two for 10 minutes and then appeared to be bored. Sara then asked Vickie to go on to next lesson.
	2. Vickie was able to recognize the four target vocabularies but had difficulty to follow the speed of the reading. Sara suggested Vickie to go back to lesson two and try reading along the sentences. Vickie did as what she was told.
	3. Vickie played lesson two twice and then started to "imitate" the audio voice.
Day 5	4. Vickie still could blurrily read along the texts in lesson two; also, she could say the keywords clearly and correctly when the corresponding icons popped up.
	5. Vickie tried lesson three for three times and could slowly follow the texts, although repeating the whole sentences were still a difficulty to her.
	6. The testing finished at this period.
Summary:	Vicky spent 120 minutes to learn the four target vocabularies. In the whole process, she appeared to be interested in the sounds and icons in the lessons. However, lessons three and four seemed to be too difficult for her. Therefore, the observation stopped at lesson three and discontinued to lesson four.

Note 1: The testing time was controlled within 40 minutes each day.

Note 2: In the whole process, Sara and Vickie used Mandarin to communicate.

CHAPTER FOUR

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

The conclusions extracted from the project follows.

1. For the improvement of the project, perhaps it
    would be better to make the texts other than the
    target vocabularies in participants' target
    languages. Doing so may reduce the difficulty
    and distraction for learning.

2. In the whole process, participant A performed
    highly interest in the animation and sound
    effects used in the lessons. It proved that
    technology might present learning materials in a
    more appealing way than books.

3. During the observation, the Internet connection
    became slow occasionally and thus affect the
    efficiency in participant A's learning in some
    minor degree. For a better online learning
    environment, the Internet connection issue will
    be an important factor.

Recommendations

The recommendations resulting from the project follows.

1. Technical issues, such as bandwidth, are the most important factors that affect the efficiency of an online ESL learning model. As the rapid development of technology, more update techniques should be used to develop more practical and user-friendly online ESL learning models.

2. As this project was designed suitable for individual user, age scope could be broader, if possible. The result of analysis would be more exact if it was done with different age groups. Moreover, different models could be developed according to different age groups or English ability levels.

3. An ideal online ESL learning tool should be easy to manipulate with; the learning objectives should be specific; a reasonable evaluation process should be carefully designed. All these demand many time and labor works. However, as the popularity of computers and the Internet, online learning would be increasingly important.

In addition to English learning, the same
concept is applicable to other languages and
other subjects.

Summary

Children play games, chat with friends, tell stories,
study history or math, and today this can all be done
supported by new technologies. From the Internet to
multimedia authoring tools, technology is changing the way
children live and learn. As these new technologies become
ever more critical to our children's lives, we need to be
sure these technologies support children in ways that make
sense for them as young learners, explorers, and avid
technology users (Druin, 1999).

The development of online language learning
activities is sure to be an exciting and growing field.
While computer programmers, instructional designers, and
computational linguists steadily push the extremes of the
field, language instructors and parents can use the basic
tools, such as HTML and Macromedia Flash, of the Internet
to create dynamic, interactive, and functional materials
for children to learn on the World Wide Web.

32

APPENDIX A

MOST POPULAR SELF-LEARNING ENGLISH AS A SECOND

LANGUAGE MATERIALS IN TAIWAN

Source: www.mothergoose.com.tw

www.kids945.com.tw

|	Mothergoose English	Kidcastle
Target audience (age group)	3-7	3-10
Learning Media	VCD (Animation) Audio CD Text Books	VCD (Animation) Audio CD Picture Books
Website content	Under construction	Same with the content of their books.
Online learning	N/A	N/A

APPENDIX B

ONLINE STORYBOOK WEBSITE

Online Storybook URL:
http://home.pchome.com.tw/star/parie/
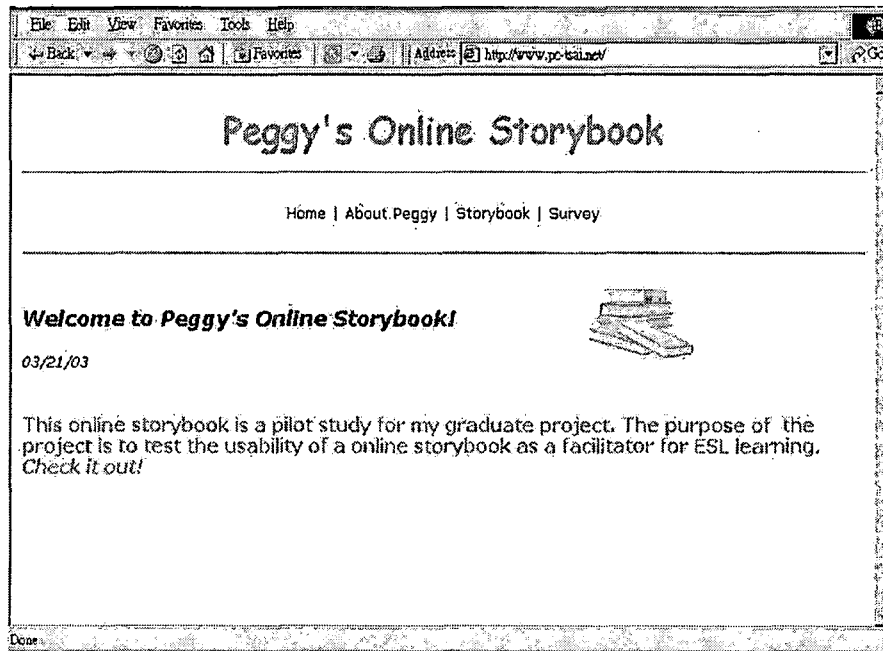
B.01 Homepage

B.02 Storybook Section
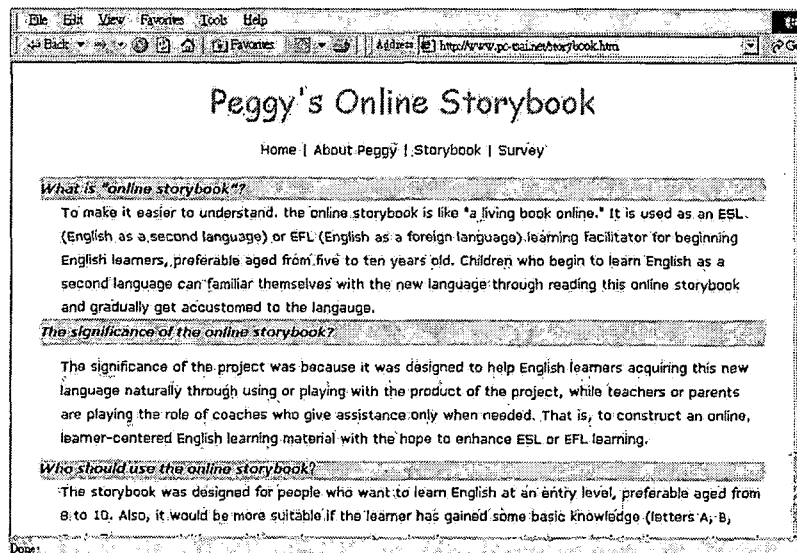
Peggy's Online Storybook

Content

Instructions

Lesson 1

Lesson 2

Lesson 3

Lesson 4

home

For parents or teachers...

Instructions

What's the content of this demo program?

The topic of this demo is "animals." Kids will learn four animals, dog, cat, duck, and crow in English. A lullaby is used to present these words:

Bow wow says the dog,
Meow meow says the cat,
Quack quack says the duck,
And, what does the crow say?

It is hoped that kids will familiar themselves with the target words (dog, cat, duck, and crow) naturally as them listen and read along the lullaby.

After playing with this learning program, please fill out the survey. Your opinion is highly expected and will be used for future improvement. Thank you very much!

APPENDIX C

SURVEY FORM FOR FEEDBACKS ON THE

ONLINE STORYBOOK

Questionnaire

For parents or teachers:

1. Did you assist the user all the way through when he or she manipulated the software?

   ☐ Yes   ☐ No

2. Do you find it difficult to use the website, as far as yourself is concerned?

   ☐ Very difficult   ☐ Difficult   ☐ Have no idea
   ☐ Not difficult   ☐ Just a piece of cake

3. Do you find it difficult for the user to understand how to play with the lessons?

   ☐ Very difficult   ☐ Difficult   ☐ Have no idea
   ☐ Not difficult   ☐ Just a piece of cake

4. How old is the user?

   ☐ 3-5   ☐ 6-8   ☐ 10-12   ☐ older

5. How is the user's English ability (according to your knowledge or observation)?

   He or she was able to...
   ☐ recognize letters A~Z
   ☐ recognize some essential vocabularies and sentences
   ☐ do a little bit communication
   ☐ speak fluent English.

6. Among the target vocabularies dog, cat, duck, and crow, how many did the user recognize before he start learning?

   ☐ 1   ☐ 2   ☐ 3   ☐ 4

7. After finshing the lessons, how many of the target vocabularies did the user recognize?

   ☐ 1   ☐ 2   ☐ 3   ☐ 4

8. How long did you (you and the user) spend on the website for the first time?

    ☐ less than   ☐ 1-2 hours   ☐ 3-4 hours   ☐ more than
    one hour.   4 hours

9. How long did it take for the user to learn all the four target vocabularies?

    ☐ less than   ☐ 1-2 hours   ☐ 3-4 hours   ☐ more than
    one hour.   4 hours

10. Can the user read aloud by himself or herself in lesson four?

    ☐ Yes   ☐ No

11. How long did it take for the user to be able to read the story by himself or herself?

    ☐ less than   ☐ 1-5 hours   ☐ 6-10   ☐ more than
    one hour   hours   10 hours

12. Do you think the lessons helped the user learning English?

    ☐ Yes   ☐ Kind of   ☐ Not at all

13. Do you think online lessons helped the user's learning efficiency?

    ☐ Yes   ☐ Kind of   ☐ Not at all

For actual users (kids):

1. How old are you? _____

2. Can you recognize English letters A~Z?

    ☐ Yes   ☐ No

3. Do you know the English vocabularies dog, cat, duck, and crow?

    ☐ Yes   ☐ No

4. Did you find it difficult to manipulate with the website lessons with the assistance of your parents or teacher?

    ☐ Very difficult   ☐ Difficult   ☐ Have no idea
    ☐ Not difficult   ☐ Just a piece of cake.

5. Did you have fun playing with the lessons?

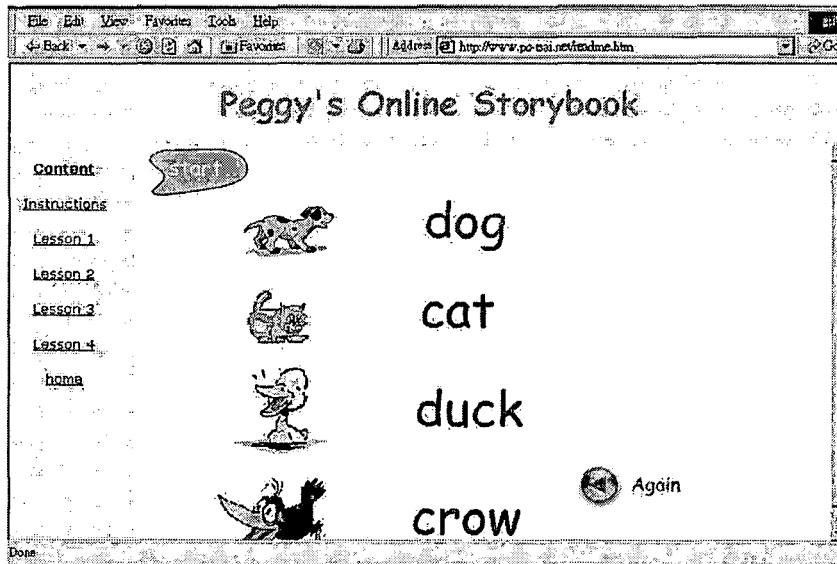   ☐ very interesting   ☐ just ok   ☐ boring

6. Do you think the online lessons helped you to learn English easier?

    ☐ Yes   ☐ No

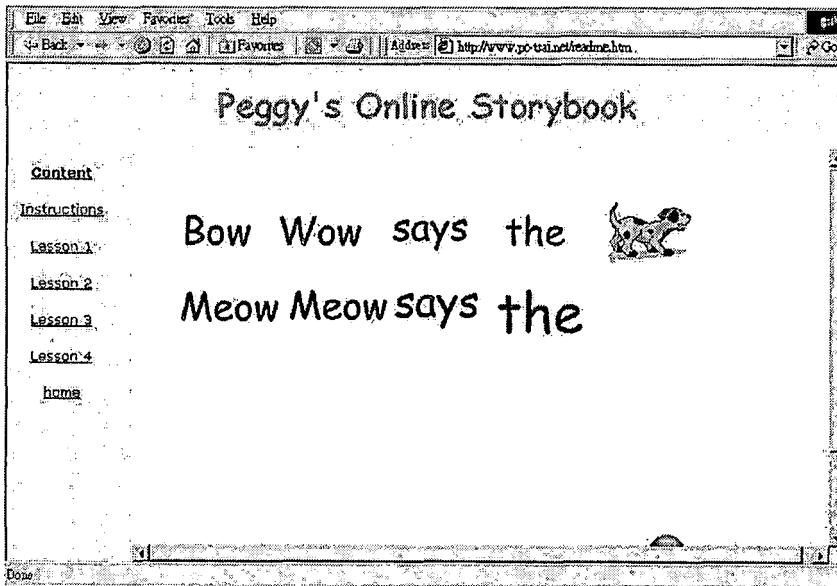7. Would you like more online English lessons similar to the one you just finished?

    ☐ Yes   ☐ No

Any comments or suggestions?

APPENDIX D
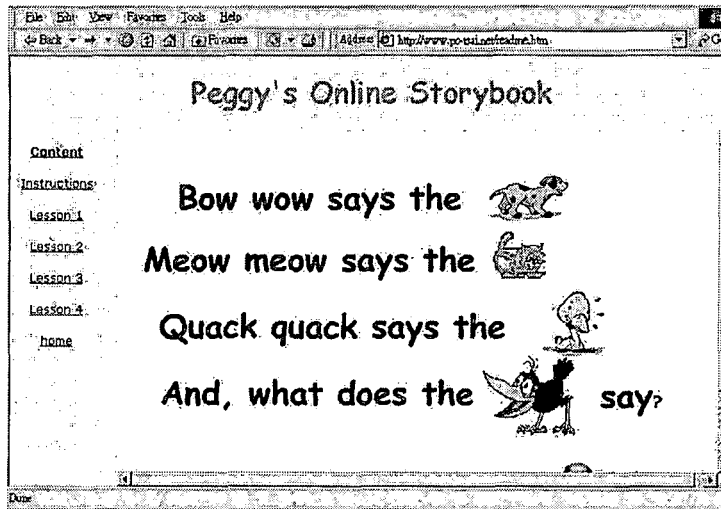
ONLINE ENGLISH AS A SECOND LANGUAGE
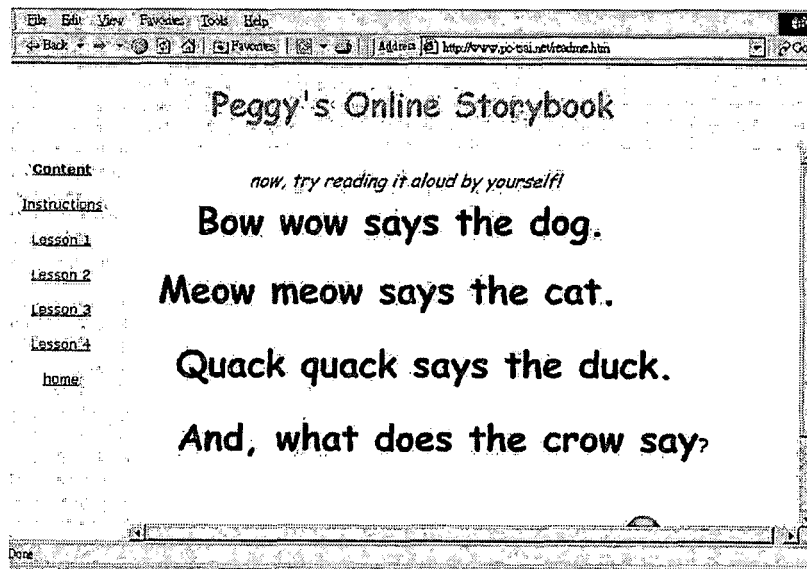
LEARNING MODEL

C.01 Lesson One

C.02 Lesson Two

C.03 Lesson Three

Peggy's Online Storybook

Content
Instructions
Lesson 1
Lesson 2
Lesson 3
Lesson 4
home

Bow wow says the

Meow meow says the

Quack quack says the

And, what does the   say?

C.04 Lesson Four

Peggy's Online Storybook

Content
Instructions
Lesson 1
Lesson 2
Lesson 3
Lesson 4
home

now, try reading it aloud by yourself!

Bow wow says the dog.

Meow meow says the cat.

Quack quack says the duck.

And, what does the crow say?

APPENDIX D

CD OF PROJECT

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47

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