NETWORK IS THE TEACHING AID IN ELEMENTARY SCHOOL

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Abstract: - This study focuses on the Teaching of Elementary Taiwanese textbooks to support teaching and web design, and to explore multi-media web design accessibility of language teaching. In this study, the textbooks in the third and fourth grade Kangxuan versions are going to be explored. through the personal involvement of the teachers actually teach and voice recording of the assistance, we use an interesting animation design, will be the language of the classroom learning process through multi-media rich changes and lively animation to enhance the motivation to learn and to provide the instructor, and students have an after-school review of the supporting environment. Guided by animated images to text through reading the story dialogue, and the game unit to increase students interest in learning.

Key-Words: - E-learning, multimedia network teaching, online learning

1 Introduction

As technology progressed, this began the era of online learning. The classroom is not the only specified place of learning knowledge anymore. The learning places are ubiquitous. The amount of information and content of the current web site has been an increasing number of broadband applications is an inevitable trend of social development, with the increase in the domestic broadband penetration, digital content services will also rise. E-learning and digital content industry, the digital learning resources is imperative. The development of online learning to be a large number of digital resources, whether it is the old digital, or the development of new digital course content, will be the focus of development, rich content to serve the needs of elementary school children and the continuous improvement and upgrading the technology in order to develop a robust the digital development.

This study focuses on the Teaching of Elementary Taiwanese textbooks to support teaching, web design, Sara et al. [5] study points out that through multi-media approach to present will be able to raise sufficient attractive user interface, and can also increase the the level of interaction, according to this, the study will explore the multi-media web design for language teaching and the effectiveness of the auxiliary functions. In this study, in the third and fourth grade Kangxuan version of the textbook is to explore the real object, and through the personal involvement of the teachers actually teach and voice recording of the assistance, we use an interesting animation design, will be the language of the classroom learning process through multi-media rich changes and lively animation to enhance the motivation to learn and to provide the instructor, and students have an after-school review of the supporting environment. Guided by animated images to text through reading the story dialogue, and the game unit to increase students interest in learning.
motivation to learn, and import Web 2.0 could be so prosperous a key factor [3], in order to provide the instructor, and students have an after-school review of the supporting environment. Guided by animated images to text through reading the story dialogue, and the game unit to increase students interest in learning.

2 Research Background and Motivation
As the popularity of computer network together with the prevalence of technology continues to advance science and technology, but also opened the era of digital learning, and now followed by all levels of schools to promote e-learning, and learning patterns resulting from changing the current site information-rich, and the content interesting, not only can increase the desire to learn, but also inspire primary school children of Taiwanese interest. At present the teaching of the Taiwanese site is not common, so we will be teaching objectives targeted at primary school children, and in accordance with the needs of primary teachers to cope with the production of a can be used in assisted teaching of the Taiwanese language learning site, and to allow primary school children in class may, after review, so that Taiwanese will not be because the parents of the importance of English, and allow the Taiwanese and gradually disappeared.

3 Research purposes
This system-assisted primary school teacher was teaching the purpose of Taiwanese elementary school children mainly in the hope you can learn to use their mother tongue, and learn the correct pronunciation. Although the Taiwanese have a place to differences in pronunciation will be different, but this does not affect the primary school children to learn Mandarin, because Taiwanese can utilize, and will not because local differences, but have different pronunciation, but in fact parts of the Taiwanese pronunciation are similar, so we should try to give primary school children the proper use of Taiwanese, and we have a better understanding of Taiwanese.

4 Literature Review
Online digital learning to use the Internet across time and across space to study teaching. Online e-learning is an attempt to use the least amount of money, so that learners, through digital electronic media to carry out the learning, through its digital content and teaching methods to create learning experiences in order to reach their objective of learning.

4.1 Web-based learning

Presented by the diversity of networks has become an integral part of their lives, so that a new pattern of education in terms of information will be used in such a diverse learning styles of teaching among the most useful thing. More importantly, through the Internet, teachers no longer have restrictions on teaching activities in the classroom or school through the BBS, WWW or E-mail and other tools can be two-way interaction, communication, correspondence and learning. Learning environment for students more flexibility in space and time, of course, the motivation and interest in learning is even more satisfying.

Jones, who pointed out that in order to increase the attractiveness and effectiveness of learning in the technology will be in the classroom and school environment, change the structure of an important and crucial role to play, especially in the use of learning resources outside the school, the technology will speed up this structure the process of change [2]. In the rapid and vigorous development of information technology today, the Internet achieved this assertion, he changed his old life style of mankind, so that the traditional boundaries of teaching and distance learning become blurred, originally to be limited by time and space constraints people, events, objects, fused via the Internet, so that users can control free and flexible learning time, without space restriction to obtain a wealth of resources for the World Wide Web. The main purpose of teaching is to help students acquire knowledge, while the effect of teaching addition to deciding the teachers law, but also determined by the interaction of teachers and students under the student learning. Caikun Lin pointed out that the function of teachers is to provide a nutritional environment that can enable students to develop their own knowledge and a positive role in the design of a student-teacher interaction so that students can not only build self-knowledge, have the opportunity to learn about others knowledge construction process Finally, through between teachers and students, and peer dialogue between Shi Zhi is constructive process can be more efficient and promote each other's feelings, and cultural communication. Therefore, a student-centered Web-based learning environment, teacher's role is not the traditional environment knowledge transfer, but for a facilitator of learning. The creation of a traditional classroom can not create a network of three kinds of environment: an open learning environment, integrated learning environment and learning environment of reciprocity. Make good use www if the power to establish an approximation of the real learning environment of Web-based learning.
system that not only can create an attractive learning environment, can be both cooperation and learning and personalized learning environment provided to the teaching and Ring a pluralistic learners learning resources and new learning.

Chia-Sui and Lai Mu back to the view that the characteristics of digital learning for the open, no matter when and where can through the Internet around the world to continue to learn. Interactive: a wide range of learning content, teaching materials is no longer just blunt words or pictures, but can have A, discussions, lectures and other diverse digital learning features. E-learning system operation teaching methods: The Internet is an important element of online learning, but the digital technology used in teaching, not just in the classroom more than one computer connected to the network only, make full use of the characteristics of Internet technology to make teaching method is more in line with the spirit of constructivism. Mainly applied to online learning system operation teaching methods, such as a diversified teaching, cooperative learning, asynchronous teaching, teaching networking topics.

E-learning Naishi refers to the characteristics of the Internet to assist in studying teaching and learning technologies, early teaching and learning technologies based on cassette tapes, video tapes, satellite TV, computer-assisted training, etc., since the Internet after wave, they gradually transformed into a Internet technology as the focus. Combination of information and Internet software infrastructure, education and training content into e-books or Web-based forms, learners multimedia online browser-reading books, and take advantage of Internet features, to send materials via e-mail courses, training materials or lecturers of the video for the education and training. Learners can be educators and other learners with an interactive discussion, led to learners not only unilaterally receive and search of knowledge, so that it becomes a more active learning behavior of adult learning methods [1] [4].

Sites related to online teaching, integration of technology into teaching, multi-media interactive learning, the Internet communication tools and software development tools-PHP and Flash CS3 and other related technologies. Currently a number of e-learning site a lot, but its content will always be a degree of doubt whether there is suitable for children, in order to be right for children to learn to be the site quality evaluation, through the study of Miao-Tzu that "children's learning site quality assessment criteria" Its classified as a site description of basic information, multimedia features, interface design and architecture, content and feedback and support, five items. Combination of these two, Lin Hongying of "site quality evaluation indicators to" provide for the Web site architecture and navigation, web content, interactive features, Web site management, multimedia design, as well as five.

4.2 Network Efficiency

In terms of the teaching of those who participate in online discussions of students that can lead students to think, and to help students avoid undue self-expression. The online discussion board to set a trigger to create the success of students in active learning and exploration of knowledge, cooperative learning environment, but the teachers participate in the discussion and interaction is necessary, because the teachers in due course join the discussion, you can guide students to think, but also can reduce the students were inappropriate remarks behavior, learning and personal development of students is of great help.

For the user, the system's deployment to provide students with a more flexible study time and enhance interest in learning the characteristics of Internet-assisted learning is not subject to time and space constraints, students can flexibly according to individual needs to learn. In such an environment, the teacher's role is to promote knowledge and learn from the past, not a messenger, so students can express themselves without pressure problems or ideas, so you can achieve the website build-assisted instruction learning. The use of online discussion forum will help interaction between the students and can cause a sense of accomplishment of this system is divided into colors of life discussion forums, academic discussion forum to share problem-solving, fun brain discuss the zones so that students can choose their own part and the students are interested in to interact, not only sharing with others, you can also understand other people's ideas, but also can get a sense of accomplishment to solve the problem. Students finishing the discussion, you can show others refined essence of the experience or knowledge of the contents of the collation of topics for discussion can help students review the focus of someone else's idea of integration and become their own implicit knowledge. Through a systematic study of the discussion area and problem-solving the essence of the content area, allowing students to easily navigate their peers to share views with the fine, and then learn to their own lack of truly become a Web site to learn beneficiaries.

There are online gaming experience of information literacy generally better than non-online game experience, but this experience does not directly affect the effectiveness of Web-based
learning, but rather a way into the indirect effects, learners need to take advantage of this available information literacy to fully carry out learning and interactive activities will be web-based learning of concrete results. Comprehensive academic study showed that "online teaching" should focus on the teacher-student and peer interaction, if only a one-way teaching and learning, their learning outcomes as the previous televised educational programs, unable to take full advantage of online interaction, sharing features Such a learning effect is limited.

An open learning environment is the use of Internet innovation sets the object did not have time to communicate an integrated learning environment, space, content control, learning activities are not limited to classroom interaction, learners have autonomy. While the learner and the professor's case, and more belong to their respective learning environment of reciprocity (as in Table 1).

Table 1 on the learning environment of reciprocity

<table>
<thead>
<tr>
<th>Role</th>
<th>Benefits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learners</td>
<td>Learners can use the Internet to all our resources, integration of resources, learners can have the initiative to create knowledge.</td>
</tr>
<tr>
<td>Professors</td>
<td>Professor who shared network resources and learners work together to put forward their views to a theoretical issue, to create a culture of equality, there is no authoritarian domination, with each other in order to continuously improve and innovation.</td>
</tr>
</tbody>
</table>

4.3 Advantages of e-Learning

E-Learning benefits: reducing the cost of teaching and training; to improve learners learn; the same time to learn new technology; greater interaction pipeline, more flexibility in class; real-time learning environment for students at any time, anywhere learning; regardless of time limits characteristics, so that we can save to and from school transportation costs and time required; a mechanism to measure the degree of students with individualized teaching material selection. The rise of digital learning, may bring a lot of shock: completely change the traditional teaching methods; anytime, anywhere learning approach; materials to share with the repetitive nature of use; teachers and students in transition between the roles and responsibilities change; the amount of body custom-made materials. Traditional learning and digital learning more (as in Table 2): A number of scholars believe that the traditional learning activities are centered on teaching, learning and learner-conferred passive knowledge of their individual learning styles are mostly independent learning, teaching and learning are must also appear in the same place a teaching imparting of knowledge; however, is a Web-based learning is learner-centered, learners take the initiative to learn anytime, anywhere learning activities, teaching those who play a guiding role, emphasizes group learning.

Table 2 Traditional learning and digital learning more

<table>
<thead>
<tr>
<th>Learning</th>
<th>Traditional learning</th>
<th>E-Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Place of study</td>
<td>Synchronization</td>
<td>Synchronization, non-synchronous</td>
</tr>
<tr>
<td>Learning time</td>
<td>Schools and classrooms</td>
<td>Anywhere</td>
</tr>
<tr>
<td>Learning-led</td>
<td>To the</td>
<td>Learner-centered</td>
</tr>
<tr>
<td></td>
<td>teaching-centered</td>
<td></td>
</tr>
<tr>
<td>Learning Path</td>
<td>Single Path</td>
<td>Multipath</td>
</tr>
<tr>
<td>Learning content</td>
<td>Standard textbook</td>
<td>Lively and flexible</td>
</tr>
<tr>
<td>Learning attitude</td>
<td>Passive learning</td>
<td>Active Learning</td>
</tr>
<tr>
<td>Learning styles</td>
<td>Individual</td>
<td>Cooperative learning groups</td>
</tr>
<tr>
<td></td>
<td>independent study</td>
<td></td>
</tr>
<tr>
<td>Learning Assessment</td>
<td>Emphasis on outcome</td>
<td>Focus on learning process</td>
</tr>
<tr>
<td></td>
<td>measurement</td>
<td></td>
</tr>
</tbody>
</table>

4.4 The disadvantages of e-Learning

Web-based instruction with a real impact on learning outcomes and the level of cognitive learning outcomes is the student's pro-active, in addition to Web-based learning and physical classroom learning, like the need for interaction with peers, if only so that individual learners to learn, can not play the digital learning environment cooperation learning and resource sharing of expertise, it is recommended teaching activities for each network design, you can use group learning, which allows the students to complete the group co-operation, the teacher can also discuss the online edition of the classroom setting to discuss issues, to encourage students to participate in the discussion. Because of the freedom and flexibility of online education, where students may only open a Web-based instruction, but did not really engage in Web-based learningur, resulting in "link network" phenomenon. Its solution recommendations are as follows:

(1) network synchronization Teaching: using the Internet a way to find out its name and whether students are really into learning and ways to use online real-time questionnaire, and the means of pumping asked;

(2) network Asynchronous Learning Network: The system enables the software agents interact with the students in learning and question and answer.
These methods can only be a temporary solution, not the illness, permanent cure of the solution is Web-based instruction designed to trigger the interest of students to be able to stimulate learning motivation of students and let students understand that in the Internet the only active learning in teaching and learning environment to share.

5 Research Methods
This study was to explore Taiwanese network-aided teaching elementary school students to serve as an auxiliary digital learning on teachers teaching and learning process for elementary school children have to upgrade role. After this study, the literature analysis and selection of cases, in accordance with the case materials used by Taiwanese curriculum content, teaching strategies, teaching activities and achievements in the development of tests, leading to the development and implementation of semi-structured interview outline for pre-test, and then to implement a Taiwanese secondary Net primary school children to enhance the teaching-learning of the teaching to analyze its effectiveness and factors, the final implementation of the post-test to analyze the applicability of network-aided teaching Taiwanese elementary school children as a digital learning network platform. Refer to Figure 1.

The study enrolled Taipei Beitou in the third and fourth grade students. Due to limited instruction, teaching classes, and therefore purposive sampling, from this study of teaching classes taught by those who collected a double shift as a major object of study, in which a group of Taiwanese-assisted instruction for integration into the Taiwanese network Experimental Teaching Course another class, students are as a control group of traditional classroom teaching. Primary school students start first grade teaching Taiwanese, ran courses for teachers and less than other factors, Jie Wei Taiwanese language courses once a week. Sampling in this study were two classes of students have received teaching Taiwanese did not accept the platform network-assisted learning. Refer to table 4.

6 The system implementation
This study set targets for the teaching materials in the third and fourth grade students, so if your site
content in the third and fourth grade textbook-based, and intended to apply to the use of the country Xiaosheng, in the interface design with easy to use for the design of the criteria, so are Click to learn interface, access to content, content to an interesting sound and animation, to allow primary school children can increase their interest in learning, and to provide a review of small game way to achieve the effect of adding songs, and proverbs, to so that primary school children to learn is different from the course interesting and enhance primary school children's awareness of the Taiwanese, even those who can not speak Taiwanese can also learn through the system to a simple life of a dialogue in Taiwanese, but also the use of discussion forum to allow users to discuss the curriculum and to learn from other experiences in the hope of promoting Taiwanese elementary school children's ability.

6.1 Architecture
1. Home: When the children to connect to the Internet to this site, will guide the animation, followed by four menu will appear.
2. Good point links: Provide child-related Taiwanese site immediately after clicking the direct link.
3. Archaism Games: Children click on the screen, you can choose to Ballads, Slang language and Guessing to the screen.
4. Course: Kids click into the picture, you can choose to Story dialogue, Game and Review texts to the screen.
5. Discussion: Communication and ask questions of the children would like to, they can click into the right side of the screen where a message button, a message from the teacher to manage and respond to children's issues.
6. Guessing: Choose Four Treasures of the children directly into the riddles in order to Taiwanese language as a subject to answer approach requires children to their own input, namely, direct access Xiao wrong answer to the third.
7. Ballads: Children click on the radio, you can use a single choice, to choose their own Taiwanese songs you want to play.
8. Slang language: Into the screen, may click button to play audio files, click the content can understand its meaning.
9. Story dialogue: Children click on books, the story will appear dialogue, from text and audio to be with.
10. Game: When the children to click on your computer, can enter the game screen.

11. Review texts: Click Gramophone children, there would be the proper pronunciation of text content and to guide the children to read text. Refer to Figure 1.

![Fig1. System architecture diagram](image1)

![Fig2. Usecase](image2)

6.2 Hardware and software requirements

<table>
<thead>
<tr>
<th>Use Software</th>
<th>Software Name</th>
<th>Uses</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrument Design</td>
<td>Microsoft Word 2003</td>
<td>Text layout processing</td>
</tr>
<tr>
<td>Component design</td>
<td>PhotoImpact X3</td>
<td>Component Production</td>
</tr>
<tr>
<td>Image Design</td>
<td>Adobe Photoshop CS3</td>
<td>Photo Compilation</td>
</tr>
<tr>
<td>Animation</td>
<td>Adobe Flash CS3</td>
<td>Animation</td>
</tr>
<tr>
<td>Programming</td>
<td>PHP 5.2.4</td>
<td>Web Editor</td>
</tr>
<tr>
<td>Database design</td>
<td>MySQL Server 5.0</td>
<td>Database building</td>
</tr>
<tr>
<td>Web Editor</td>
<td>Macromedia Dreamweaver 8</td>
<td>Website Editor</td>
</tr>
<tr>
<td>Browser</td>
<td>Microsoft Internet Explorer 6.0</td>
<td>Web Browser</td>
</tr>
<tr>
<td>Servers</td>
<td>Apache HTTP Server 2.2.6</td>
<td>HTTP server</td>
</tr>
</tbody>
</table>
Table 2. The use of environmental requirements

6.3 Site architecture - home
Home is the use of a rural flavor to render the house, by the house on the four windows, each will be links to different pages, namely, discussion boards, programs, or supplementary, good point link, click on the side of the legislation if the card can be back to our beginning of pre-animated. Shown in Figure 2.

![Fig2. Site architecture home](image)

6.4 Site architecture - course
Inside the content of the curriculum and textbooks related to study ways to render. All items in our study represents the classification of courses into texts through reading games, story dialogue. Shown in Figure 2, Figure 3, Figure 4, Figure 5, and Figure 6.

![Fig3. Site architecture course - A reading together](image)

6.5 Site architecture - Archaism Games
Click to add windows to enter the country mainly to supplement primary extra-curricular knowledge-based, to a way to render the living room. The living room each item represents the classification of courses, there is the theme to TV slang, to the radio as the theme song to the theme of pen and paper puzzle, you can click next to scroll back to pre-animation, point of entry object can enter all the content, click the bottom right corner of the pots can go back home. Shown in Figure 7, Figure 8, Figure 9, and Figure 10.

![Fig4. A reading together - review texts - texts a single sentence](image)

<table>
<thead>
<tr>
<th>Hardware Name</th>
<th>Hardware</th>
</tr>
</thead>
<tbody>
<tr>
<td>OS</td>
<td>Windows XP</td>
</tr>
<tr>
<td>CPU</td>
<td>Intel Pentium 3 or more aircraft types</td>
</tr>
<tr>
<td>Memory</td>
<td>At least 512MB RAM</td>
</tr>
<tr>
<td>Hard disk space</td>
<td>1GB or more</td>
</tr>
<tr>
<td>Monitors</td>
<td>32 bit 800 * 600 pixel display</td>
</tr>
<tr>
<td>IE browser</td>
<td>IE6 and above</td>
</tr>
<tr>
<td>Audio Devices</td>
<td>Built</td>
</tr>
</tbody>
</table>
6.6 Site architecture - Discussion

Discussion is open to students with any questions you can ask questions in this and other topics of interest to see the students can also choose to respond, if the subject responded more than five will become popular articles, otherwise, it is a general article. Shown in Figure 11. Managers is to provide background for teachers to manage. Teachers can choose to respond to the theme, you can also choose to remove a piece of response can also choose to delete the entire theme, to confirm the deletion, there would be prompt window to determine before you can delete, it will not inadvertently delete the keys from happening.

6.7 Site architecture –Good point links

Good point links are provided and Taiwanese-related sites, to interested reference. Figure 12.

7 Conclusion

Learning is now something must be done because the learning is endless, especially in primary school children, because they are now at the best stage to absorb knowledge, while the Taiwanese dialect gradually decline, so we want to, and Primary Taiwanese co-teachers, and create a school can assist teachers in using the system, Fujian Province. The system is based on dynamic, interactive, fun as a starting point for primary school children and help build a multi-site study. In order to enhance primary school children interested in learning, so we most lively way to present our web site, so not only can increase the interest of elementary school children can also stimulate elementary school children's learning ability, while the Taiwanese Ministry of the most important copies is to say, so special and with the Taiwanese teachers, so that you can read a more standard method. Coupled with the advance of the Internet, allowing primary school children to achieve the characteristics of digital learning,
Internet-assisted learning is to enhance students' efficiency and effectiveness of interactive learning. The future can enhance the "search words" of the features that make it easier for primary school children to find their own vocabulary. Also available online recording function, so that primary school children can compare their own pronunciation is correct.

References: