Experiences and Countermeasures in a Web-Based English Teaching Project

Yanfei Liu

Luoyang Institute of Science and Technology, Luoyang, China

Abstract—**English learners are provided by the Web with fast, abundant and authentic materials. Besides, the features in hypertext structure, multimedia capabilities and online communication have a great influence on education, especially on second and foreign language education. Thus how to make use of the Web to facilitate English teaching and learning has become an essential issue for both learners and instructors. To design an effective Web-based course, teachers may take the three models proposed as reference: analyzing students' needs and clarifying their characteristics, setting their learning objectives and choosing the suitable Internet resources as teaching materials. The successful Web-based courses should be based on a clear pedagogical rationale and interaction, authentic activities and technological issues.**

Index Terms—**Computer Assisted Language Learning (CALL), English Teaching, Experiences, Countermeasures**

I. INTRODUCTION

Actually, computer has been used in language teaching since the 1960s; therefore Computer-Assisted Language Learning (CALL) is not a new concept for language teachers. This thesis mainly deals with one form of CALL, which we call network-based language teaching (NBLT) or Web-based language teaching (WBLT) [1-2]. First, some related work on CALL and NBLT is reviewed and the problems and challenges in China are presented. Second, the instructional features of the network are illustrated. Then a survey on web-base English teaching is conducted. Though the investigation, various problems are found in the target group chosen from teachers and students in Henan University of Science and Technology and Luoyang Institute of Science and Technology. At last, students' full preparation and effective learning methods under teachers' instruction are proposed with details. Besides, students should improve relating online skills.

II. RELATED WORK

The field of CALL is inherently multidisciplinary. It applies research from the fields of second language acquisition, sociology, linguistics, psychology, cognitive science, cultural studies and natural language processing to second language pedagogy, and melds these disciplines with technology-related fields such as computer science, artificial intelligence and media- communication studies. According to Warschauer, whereas CALL has traditionally been associated with self-contained, programmed applications such as tutorials, drills, simulations, instructional games, tests and so on, NBLT represents a new and different side of CALL, where human-to-human communication is the focus. Broadly, CALL is the search for and study of applications of the computer in language teaching and learning [3]. NBLT "involves the use of computers connected to one another in either local or global net works". On the basis of these broad definitions, we may consider network-based language learning as one type of CALL. Though the Internet (net), the Web and network have slight difference between each other, we treat them as synonyms in the thesis [4]. Accordingly, this thesis is focusing on the use of the Internet (the Web, the net) in classroom to supplement English teaching and facilitate English learning. Since usually foreign language teaching and learning mainly refers to English teaching and learning, WBLT also means WBET (Web-based English teaching and learning) in this thesis.

CALL's nearly-50-year history includes roughly three main periods: the behaviourist CALL period, the communicative CALL period and the integrative CALL period. Each period is based on a certain level of technology. Meanwhile, each period corresponds with a certain pedagogical approach. Behaviourist CALL can be considered as a sub-component of the broader field of CAI (computer-Assisted instruction). In 1950s, B.F. Skinner advocated the use of teaching machines for individualized instruction. At that time, the behaviourist CALL was based on the Stimulus-Responds theory. It argued that the whole process of learning was controlled by reinforcement or reinforcing stimulus. If people could improve the control over or the overt stimulus upon the reinforcement of learning, the learning would be achieved. Informed by the behaviourist learning model, CALL programs of this phase featured repetitive language drills, referred to as "drill and practice" or "drill and kill". In the paradigm, the computer was regarded as a mechanical tutor who never grew tired to deliver instructional materials to the student. The best-known as well as the largest CAI system of this phase was the PLATO system developed by the Illinois University. It ran on its own special PLATO hardware, including a central computer and 4000 terminals. PLATO system provided more than 6000 series of CAI programs about over 100 courses. In the late 1970s and early 1980s, with the creation of PC computer the research of CALL was improved and gradually replaced by the communicative CALL.

The personal computers provided greater possibilities for individualized CALL activities. In the early 1980s, due to the decline of behaviourist CALL and the instruction of microcomputers, new computer technology and new teaching method put CALL into the communicative CALL period. The communicative CALL was conceived on the base of communicative theory which was the mainstream of linguistics in the 1970s and 1980s. It advocated that learning was a process of discovery, expression and

development. The language teachers should not only teach students the linguistic knowledge but improve their communicative competence, strategic competence and interpretive strategies [5]. In 1984, the major advocator of the approach John Underwood proposed "Premises for Communicative CALL". The communicative CALL focused more on using forms rather than forms themselves, and it stressed that teachers should teach grammar implicitly rather than explicitly, allows and encourage students to generate original utterances rather than just manipulate prefabricated language.

The essence of the communicative CALL is to create a communicative language learning environment to stimulate the learners' motivation in the process of learning. Although the communicative CALL is superior to the behaviourist CALL, there are also some disapproval voices. Some educators pointed out that in this period the computer was making greater contribution to marginal rather than central elements of the language learning process. So they sought new ways to teach in a more integrative method which could integrate various aspects of language learning process.

Because the use of the Internet is widespread in numerous fields and domains, undoubtedly, it also carries great potentials for educational use, especially for second and foreign language education. In recent years, more and more researchers have discussed the great potentials that can be used in language teaching offered by the Internet and the World Wide Web. In short, the great benefits of the Internet to enhance language learning lie in:

(1) The abundant authentic materials provide students real, fresh and updated information.

(2) Hypertext structure helps students enhance active learning strategies.

(3) The Internet multimedia capabilities may promote language learning interest and information memory.

(4) Online communication activities offer learners a real context to communicate with native speakers [6].

In addition, by making use of the Internet, learners may carry out a variety of language learning activities, such as reading online newspapers and magazines, enjoying streaming videos or online movies, listening to live radios, etc. When purposefully and properly used, the Internet can be a powerful and useful tool in facilitating language teaching and learning.

However, the problems and challenges still exist in WBET in China [7]. Since we have specific interest in Web-based education, we have made long-term observations in this field. We notice that some students and teachers have the indefinite understanding of Web-based language teaching and learning. Some students become addicted to chat or games when surfing online, ignoring the abundant authentic learning materials from the Internet. Some teachers continue adopting the conventional outdated textbooks and exercises without using the advanced multimedia network [8-9]. Some teachers use only the text on the Web to assist English teaching, putting aside the functions of multimedia, hypertext or communication of the net [10]. In this information age, can teachers and students make use of the Internet to facilitate English teaching and learning effectively? Can the online English courses achieve the expected results? What is the current use of the Web in TEFL (Teaching English as a Foreign Language)? In this thesis, we firstly review the back-

ground knowledge of the Web to facilitate language learning. These include the unique instructional features of the Web, online activities that can be used to enhance language learning and the theoretical basis of WBLT [11]. Then a survey to study the current use of the Web in FLT (Foreign Language Teaching) is followed. By analyzing the data and discussing the problems and challenges confronting teachers and students, lastly we put forward some suggestions, for the purpose of providing some reference for the promotion and improvement of using the Internet in FLT in China.

III. UNIQUE INSTRUCTIONAL FEATURES OF THE NETWORK

A. Hypertext Strucure and English Network

The Internet provides language learning great benefits which are demonstrated in its unique instructional features. Although these features will be discussed separately below, they are interrelated. Hypertext is nonlinear or nonsequential text [12]. It consists of nodes and links. The nodes are used to store variety of information, such as: texts, sounds, pictures, animations, etc. And the information can be linked together. The hypertext is organized so learners can easily jump from topic to topic. Learners do not need to read the text in a fixed or linear sequence. On any web pages, using a single mouse click, they may quickly view different parts of the information, from one page to another on the same Website, or to another web page of a different site, from this text to a picture or an animation or even audio materials, such as mp3 or videos. Hypertext requires readers to make decisions about their reading. It is an active learning strategy. Since learners must decide which materials are appropriate while surfing online, they have to analyze, evaluate, and then choose the materials according to their needs. In this learning process, they cultivate the learning strategy. Actually the potentials of hypertext structure to foster learning have been discussed in a number of studies and papers, though not specifically with regard to language learning. He recommends that the characteristics of hypertext structure may help organize the teaching materials effectively. Generally speaking, cultivating the four skills, namely listening, speaking, reading and writing are the basic goals of foreign language teaching. Thus the teaching materials should include visual and aural information. However, the traditional published textbooks cannot meet the standard that text documents, sound or animations should be combined together. Teachers have to use textbooks, tapes and videos separately in a language classroom. Compared with the conventional textbooks, online teaching materials which combine text documents, sound, pictures, and videos together by using hypertext structure are more convenient and attractive.

B. Multimedia Network Technology and Online Communication

The multi-stimuli to human being's sense organs show more efficiency in improving language learning than single stimulus. Psychologists have made experiments to investigate information acquiring and memorizing. The experiment which deals with information memorizing shows that learner can remember 35% of the information from text-based materials, 15% of it from hearing; but if they use both hearing and vision in the study, they can

recall 50% of the information; and if they present or discuss the information in the communicative process, they may remember 75% of it. The goal of communicative language teaching is to cultivate the communicative competence. It emphasizes the process of communication, such as using language appropriately in different types of situations; using language to perform different kinds of tasks; using language for social interaction with other people; using authentic language materials. Online communication provides an authentic context for language learning. Through the communicative tools such as E-mail, chat rooms, bulletin board, etc., the network structure diagram, as show in figure1, learners have a lot of chances to negotiate and discuss with English native speakers about various social, political or cultural questions.

In this communicative process, learners are highly interested and motivated by talking to native speakers. They realize that they should have more responsibilities for their language output. Since they are involved in real communicative situations, they will pay great attention to their sentences and words. Once their sentences are successfully accepted and they get the response from native speakers, they would be greatly encouraged and continue to use target language to communicate again. So in online communication, they can practice their communicative skills and improve their communicative competence.

IV. WEB-BASED ENGLISH TEACHING AND LEARNING

A. Objectives and Subjects

In this survey, we may consider some important issues. How do teachers and students make use of the Internet resources? Can they fully make use of the Internet to help English teaching or learning? Do they understand the great potentials of the Internet? What are their learning skills and methods when they go on line? The main purposes of this survey include two parts. As for students, we want to explore

1. Students' attitudes towards Web-based language learning.
2. Students' learning skills and strategies.
3. Their learning difficulties for self-access Web-based language learning.

The subjects of this survey include students and teachers. Altogether, 150 students are investigated. They are called participants below. Forty of them are from Grade 2011, the Department of Foreign Language, Luoyang Institute of Science and Technology. Fifty participants are from Grade 2011, Department of Computer and Information Engineering. The rest are from Grade 2011, Foreign Languages School of Henan University of Science and Technology. All the participants are classified into English majors and non-English majors. They are from different districts and have different background knowledge. So their answers can be seen representative. As for the teachers' investigation, 10 English teachers are chosen by random samples for the interview. They are from the College of Foreign Studies and Instructional Center for College Foreign Languages, Henan University of Science and Technology, the Foreign Language Department, Luoyang Institute of Science and Technology They come from different districts and teach different English courses. Their answers also can be seen representative. Their background will be listed in Table 1.

As mentioned previously, online activities include reading online newspapers and magazines, using search engines, remote access to libraries, watching streaming video or listening to streaming radio as well as online communication through e-mail or chat rooms. The findings in Table 2 indicate that the participants highly approve of the advantages provided by the Internet. They have showed great interest in the activities.

Proper online learning skills may help learners to learn fast and efficiently. However, Table3 reveals that most participants do not master the proper learning skills and methods. They don't know how to search, choose and evaluate the information, even download the materials.
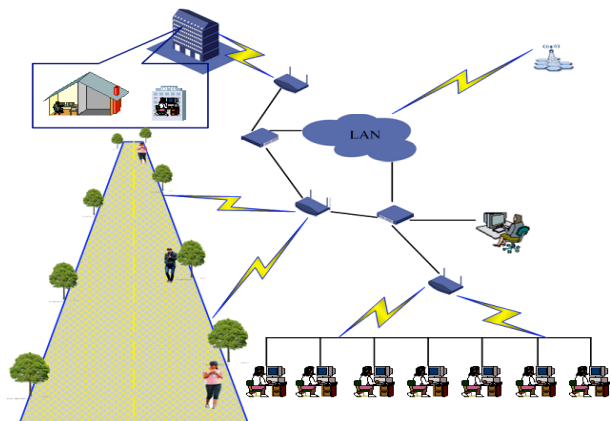

Figure 1.   The network structure diagram

TABLE I.
BACKGROUND OF TEACHER

Interviewees	Age	Sex	Teaching Courses	Years of Internet
1	29	Female	English Writing	4
2	33	Male	Oral Interpretation	3
3	45	Male	English-speaking	7
4	26	Female	College English	3
5	29	Male	College English	5
6	56	Male	Comprehensive English	7
7	53	Male	College English	6
8	39	Female	Oral Interpretation	7
9	34	Male	Comprehensive English	5
10	33	Male	English Writing	6

TABLE II.
STUDENTS' ATTITUDES TOWARDS ONLINE ACTIVITIES

Name of Project	Choices	Rate
Reading online English magazines and newspapers	1.Abundant information	89%
	2.New and original contents	77%
	3.Vivid and vigorous form	56%
	4.The same as conventional ones	21%
Using search engines	1.Plentiful information	96%
	2.Fast and convenient	90%
	3.Disordered information	49%
	4.A waste of time	37%
Remote access to libraries	1.The same as school library	11%
	2.Faster and more convenient, more information	76%
	3.Less convenient than school library	26%
Watching streaming video or listening to streaming radio online	1.Improve listening and enlarge knowledge	93%
	2.Vivid and Vigorous	89%
	3.Little help in English learning	18%
Online Communication mail and chat rooms	1.Have high interest	93%
	2.Feel relaxed	88%

TABLE III.
STUDENTS' ONLINE LEARNING SKILLS EMPLOYMENT

Name of Project	Choices	Rate
When browsing Websites or reading online newspapers and magazines	1. Get lost in links	31%
	2. Forget a lot when offline	47%
	3. Feel difficult to make notes	33%
When Choosing information	1. Glance quickly and choose at random	48%
	2. Ask teacher for help	9%
	3. Lost interest or even quit searching because of the endless and disordered information	32%
When searching information	1. Find out suitable information quickly	14%
	2. Cost a lot of time then find out some	44%
	3. Cost a lot of time but can not find anything	16%
When locating or listening or watching streaming materials online	1. Can not find the suitable resources	37%
	2. Do not know how to locate or operate	27%

B. The Existing Problems

It seems clear that the participants have two attitudes towards the learning results. On one hand, most of them have realized that the net can bring great benefits to English learning. On the other hand, they get unsatisfactory learning results when they are learning online. This is largely due to students' uncertain online learning goals. As can be seen in Table 6, only 13% of the participants claim that they have definite learning goals. Since most of them have no learning aims, they don't set their learning tasks so that they achieve little. Meanwhile, we may notice that learners' learning time is not regular since they don't have clear and definite learning goals. As indicated in the chart, the maximum to minimum varies from five to zero. 15.7% of the participants report that they don't learn English at all when they are online. It is known that there are so many attractive computer games, music and video clips online that students are easy to be addicted to them. If they do not set their learning goals and tasks, online learning is hard to obtain the satisfactory result. Furthermore some objective factors that lead to the uncertain learning aims should not be ignored. The findings also reveal that most participants do not have their computers and the network construction still needs improvement. The network infrastructure is far from enough to meet the students' requirements. Students complain that the online speed is very slow so that they consider World Wide Web as "World Wide Wait". In addition, WBET does not get a wide publicity and clear instruction among students. They seldom get the guidance from their teachers. To change this situation, students themselves should raise awareness of using Internet to learn English. They should keep the learning time and set learning tasks when they are online. More importantly, teachers should provide necessary instruction and administrators should give more support to improve the network construction. It seems that most participants are not accustomed to the self-access online learning. The reason is that they still employ the traditional learning methods. In traditional instructor-led learning, the instructor occupies the role of leader and wields more weight in the learning process. Students take notes, do exercises and follow the instructor. They are not used to exploring and solving the problems by themselves. Ac-

cording to the collected data, most participants' online learning skills are not satisfying. Table 3 shows that 31% of them get lost in links; 33% of them feel difficult to take notes when browsing Websites or reading online journals; as many as 48% of them just choose the information at random and only 14% of them claim that they are able to find out the suitable information fast when searching; 37% of them report that they can not find suitable Websites to locate the streaming materials; 27% of them think that they don't know how to download and operate the basic software.

C. Improvement and Suggestions

To meet the challenges of FLT reform, students should get full preparation. First of all, they should have their definite and clear learning goals when they are online. As we know, learning objective is the starting point of a learning program. Hedge points out that making the stating of objectives in course planning has many advantages, it enables us to assess the appropriateness of course materials; to make explicit the aims of the course and how these have been determined, and to encourage students to develop their own agendas for the course." Therefore students should set the compulsory learning tasks of integrating English learning with the Web. Only when they have the definite and clear learning aims in their mind, can they resist the temptations from the net, such as computer games, music and video clips, chatting rooms, etc. Students may set their definite tasks or projects for themselves or teachers may give their students assignments, such as writing an E-mail for their keypads, designing a Web page, discussing a topic with their partners, interacting on a listserv, etc. After they accomplish the tasks, they should provide a report or some products of their learning activities. These tasks must be completed before the set deadline so that students have to concentrate on the learning activities. Secondly, students should change their online learning methods. On one hand, self-construction learning method can be adopted. According to the constructivism theory, in the learner-centered environment, learners construct their own meaning based on personal experience and experiential activities. Language learning in a Web-based environment can be seen as a constructive process with the learner building knowledge in head. Thus in Web-based instruction environment, learners are not the passive recipients of information any more but the active information workers and program participants. In traditional instructor-led learning, the teacher occupies the role of leader and wields more weight in the learning process. By contrast, in online learner-led learning, the students are allowed and expected to be more self-directed. This means that students can access appropriate authentic information, participate in communicative activities, draw conclusions and solve problems by themselves. On the other hand, cooperative learning should be used by students. As we know, constructivism also advocates cooperative and collaborative learning. Collaboration is the cardinal element of constructivism. Constructivist approaches are designed to create an environment for conversation, collaboration and cooperation among learners. The Internet provides opportunities for students to collaborate and interact in small groups in the classroom, or for connectivity with students on other parts of the world who also work on the same projects together. There are many benefits of learning through online collaboration and coopera-

tion: students acquire social skills, foster their sense of teamwork and decrease their dependence on the teacher, experience different viewpoints and learn how to work together with people from other countries. These superior results have been confirmed in many cooperative Web-based projects, which are archived on Websites so that we can get ideas to use in our own instruction. For students to work cooperatively in their groups, we recommend several essential skills:

1. Listening to each other's ideas and comments. Students should give response to ideas of their teammates.
2. Asking questions of each other. They should interact by discussing and posing questions to all members of the group.
3. Respecting the opinions of others. Students should encourage and support each other's ideas and efforts.
4. Helping each other. Students must offer advice, suggestions or assistance to one another.
5. Sharing ideas and thinking. Students must report their findings and synthesize each other's results into the final group product.
6. Participating as part of the group. Each student's contribution is important to the outcome of the project.

The last but not the least, students should develop their online learning skills. As can be seen clearly in the investigation, students' online learning skills are not enough to meet the challenges of Web-based learning reform. The basic online learning skills are the prerequisites for successful online English learning program or activities. Forsyth proposed a generic set of skills for a learner using the Internet. These include searching skills, book-marking or creating links, downloading and virus protection. Besides these, students should master the basic computer operating skills such as typing and the usage of Internet Explore software. Searching skills such as how to use search engine, how to enter the key words are also very necessary. Evaluating and choosing suitable materials needs more online experience but depends mainly on learners' linguistic knowledge and English proficiency. Hence students should keep their online learning time regular so that they can get more online experience. And more importantly, they should try to improve their English proficiency so as to evaluate the suitable authentic materials.

V. CONCLUSION AND OUTLOOK

There is no doubt that the Internet has been revolutionizing our lives for many years. The Web is so pervasive in numerous fields and domains that it also shows great potentials in second and foreign language education. Many researchers have discussed the great benefits that can be used in language teaching and learning offered by the net and the World Wide Web. In conclusion, regardless of the difficulties and problems lying ahead, we must admit that the Internet makes a revolutionary impact on language teaching and learning. Due to its tremendous authentic information, multimedia capabilities, hypertext structure and interactive environment, it brings a new concept to the pedagogy of the foreign language teaching and learning. Meanwhile, it is certain that lifelong learning has become a new educational idea of the 21st century, which requires learners' autonomy and continuous learning. The net can offer an active learning environment for collaboration and interaction between different learners without regard for time and space. Its easy accessibility and non-restricted time really meet the requirements of lifelong learning. Web-based teaching and learning is sure to be the trend of educational reform. Therefore instructors should keep pace with the times and lay emphasis on using the Web to enhance teaching. Yet, to make the integration of Web-based activities a successful learning program, it requires both learners and instructors' great efforts, full preparation and effective organization. The successful Web-based language course must be based on a clear rationale, while learner's characteristics, interaction, authentic activities, technological capabilities and other developmental issues need to be carefully considered.

REFERENCES

[1] S. Li, C. Yang, Y. Zhang, "A survey on the present situation of students' education technology ability at a normal college," *World Transactions on Engineering and Technology Education*, 2013,vol. 11,n. 6, pp.521-526.

[2] G. Cong and W. Xing, "An innovative method for bilingual case teaching of engineering project management," *World Transactions on Engineering and Technology Education*,2014,vol. 12,n.3,pp.31-36.

[3] U. Ojiako, M. Ashleigh, M. Chipulu, "Learning and teaching challenges in project management," *International Journal of Project Manage*,2011,vol. 29,n. 4, pp.268-278. http://dx.doi.org/10.1016/j.ijproman.2010.03.008

[4] J.Ou. "A Survey on web-based English teaching and learning and the pedagogical suggestions," *Jouranl of Guangxi Normal University*, 2004,vol.15,n. 6, pp.15-18.

[5] X. Wang, "The effect of meta-cognitive strategy training on reading comprehension and meta-cognitive awareness of English majors in a vocational technology college," *World Transactions on Engineering and Technology Education*,2014,vol. 12,n.10, pp.78-83.

[6] W. Bao, "Research on college English teaching based on intercultural communication in engineering universities," *World Transactions on Engineering and Technology Education*,2014,vol. 12,n.3, pp. 191-195.

[7] Y. Luo, "Investigation and strategies on non-English major student's social culture competence," *Social Science Review*,2013, vol. 16,n.4, pp.346-348.

[8] C. He, "The analysis of target language social culture competence and language ability of English-major students," *Journal of Foreign Language and Literature*,2010,vol. 16,n.1, pp.81-84.

[9] D. Carless, "Implementing Task-based Learning with Young Learners," *ELT Journal*,2002,vol. 6,n.7, pp. 17-20. http://dx.doi.org/10.1093/elt/56.4.389

[10] S. Martinez, "ESP in European higher education integrating language and content," *The Modern Language Journal*,2009,vol. 93,n.3, pp. 654-655.

[11] Q. Peng and J. Peng, "Practical teaching system in application-oriented university," *Research and Exploration in Laboratory*, 2009,vol. 28,n.5, pp.106-108.

[12] K.Brandl. "Integrating Internet-based Reading Materials into the Foreign Language Curriculum: from Teacher to Stuedent-centered Approaches," *Language Learning and Technology*,2002, vol. 6,n.8, pp.87-103.

AUTHORS

Yanfei Liu is a lecturer in School of Foreign Languages, Luoyang Institute of Science and Technology, 471023, China. Her research interests include English language teaching, pragmatics, second language acquisition, etc. (email:lylg_liu1982@163. com)