

Online Resources and Materials

What Do They Mean to Students?

by Lee Kooi Cheng, *National University of Singapore* (elcleekc@nus.edu.sg)

This paper reports the results of a small experimental study examining students' effective use of online materials and resources, with and without teacher supervision and intervention. Sixty two students in six classes of a technical communication module were divided into two groups: comparison group and experimental group. Once a week, for ten weeks, students in the experimental group were prompted to check and access online materials and resources related to the module. Students in the comparison group were not reminded to do so. Using a survey questionnaire, both groups of students indicated 1) how frequently they went online, 2) which type of information they found most useful, and 3) factors encouraging them to access these online resources. Findings of the survey suggested that left unsupervised and without prompting from the teacher, most students did not seem to make use of the online resources provided. Also, results of the survey implied that the key motivation for students to go online was to gain access to resources that could directly contribute to their final grade. This paper thus questions students' main motivation for using online materials. It also argues that teacher commitment and involvement is crucial in ensuring that students benefit from using online language learning resources.

■ Introduction

The rapid growth of the Internet and the subsequent widespread move towards a virtual learning environment in the past two decades have prompted many language teachers to explore the potential of online language learning tools, such as course websites, Computer Mediated Communication (CMC) and Web-based activities, as a mediation tool for language learning. In order to make these online language learning tools available to students, teachers who are enthusiastic about IT (Information Technology) spend hundreds of hours learning how to make use of web publishing tools to create and place materials online. Others, who are less computer-savvy, either purchase software programs or spend a considerable amount of time surfing the Internet to look for sites appropriate for the context of their language classes. However, to what extent do students make use of these resources and materials that teachers take so long to develop?

The question this paper hopes to address is how likely students are to access and browse through online materials or do online exercises without reminders from the teacher. This paper also explores factors that motivate students to make use of online resources and materials.

Online Resources and Materials

Resources/Materials put online can be and have been used as a substitute for traditionally printed materials, such as course information, lecture notes, exercises, quizzes, and others. Instead of distributing these materials in the class in the form of printed handouts,

they are made accessible via the electronic mode. Administratively, putting course materials online is convenient and cost-saving for the teacher. A check on language and communication sites available on the Internet reveals that the basic contents include description of the syllabus, course schedule, types of assessment, assignments and exercises, information about the teacher, announcements, and links to relevant online resources and references.

Some online sites offer creative and interesting CMC and Web-based activities that promote communication amongst students, and between students and the teacher. Web-based activities also provide students with the opportunity to learn beyond the classroom. Such activities include the sharing and exchanging of ideas on the Web via chat rooms and discussion forums, the use of the e-mail facility, online tests and quizzes, online research, etc. In these cases, instead of using the online sites merely as a tool to transmit messages, they have now become an integral part of the teaching methodology and the learning environment.

■ Literature Review

Literature and research reporting on the use of online language learning activities highlight the following features that make them an effective and successful method in the language learning and teaching environment.

Easy Access to Information

One strong argument for implementing Web-based activities is that the students will have access to information at any time and in any place convenient to them. "Students can spend more time outside of class practicing the skills they've learned in the class," (Bell, 1998:8). While this is theoretically true, in practice, students do not always have access to a computer. Therefore, before deciding to put materials or activities online, it is crucial that the teacher ascertain the availability of a computer and the accessibility of the Internet facility.

Student-Centred Approach

Not only do students have the flexibility of doing the exercises whenever and wherever they choose to, additional exercises and other online resources that the teacher puts on the Web also allow students to focus on specific areas in which they are weak (Godwin-Jones, 1996). In other words, while fulfilling the general requirements of the syllabus, the teacher can at the same time cater to the individual needs of the students by referring them to particular materials or resources that they can work with on their own. Although this can be done via the conventional way of referring the students to printed materials, the convenience of and easy access to information make the Web more efficient and preferable. In addition, there is an abundance of good resources on the Web that the teacher can select and hyperlink for the students to make use of at no cost at all. This makes appropriate and suitable selection of materials, organization of materials in a user-friendly manner, and the speed with which the students can access the materials important.

Independent Learning

The concept of independent learning is reinforced in a course that has Web-based activities because with resources and materials so easily and readily available, the responsibility of seeking improvement rests on the shoulders of the students. Recent research has shown that Web-based activities help in promoting independent learning. In Morrall's (1999) study, results revealed that 72% of his respondents agreed learning English on the Internet had made them a more independent learner. In another study, Sengupta (2001) found that because opinions and thoughts are visible on the Web, her students developed a sense of responsibility and accountability that is less prominent in a face-to-face classroom situation. Her students became more autonomous in their learning.

In fact, independence in learning is a skill required not only to survive in the academic world, but also to excel in the current technology and knowledge-based era. Forsyth (1996) maintains that the student is no longer a recipient but a participant in the learning environment. "If the course materials are designed for optimal interaction, the learner becomes a searcher with a level of responsibility for their learning ..." (Forsyth, 1996:33). Clearly, the activities put on the Web should prompt

students to be inquisitive and to want to look for information that has not been covered in the classroom.

Collaborative Language Learning

Research in collaborative language learning has indicated its potential (Crismore & Siti Fauzeyah, 1997; Kinsella, 1996; Jacobs, Gan & Bau, 1995; Zhuang, 1995; Nunan, 1992; Christison, 1990; Bejarano, 1987; Long & Porter, 1985; Pica, Young & Doughty, 1987) in promoting communicative competence, social and interpersonal skills, and self-confidence and self-esteem. Recently, the concept of collaborative language learning has been extended with the use of CMC tools. These CMC tools have helped to facilitate more effective and efficient collaborative language learning. They make communication faster and more convenient.

Learning is no longer confined to the classroom but extends beyond it. The Internet and CMC tools make possible "authentic experiences of the target culture and authentic exchanges with native speakers" (Felix, 1998:15). They help broaden the students' perspectives and most importantly, they open up a whole realm of opportunities for communication and interaction. In fact, students who had worked together with their peers in another country found the experience enriching, both linguistically and culturally (Shive, 1999; Soh & Soon, 1991).

In short, these cited studies have reported the effectiveness of CMC tools and Web-based activities in improving students' language learning. However, it is not clear whether students' motivation for online learning is due to the novelty of and their familiarity with the use of technology, or if teacher intervention is the key motivator. Answers to this question will help teachers decide how they should structure, organize and incorporate online language learning activities.

■ Current Study

Purpose

A study was conducted to find out 1) whether students would take the initiative to make use of online resources and materials in a course, with and without teacher intervention, 2) factors prompting them to access these resources and materials, and 3) the types of online information and activities students expected in a language and communication website.

Course

TC (Technical Communication) is a compulsory module for students studying for the Bachelor of Engineering at the National University of Singapore. It aims to help the students develop the communication skills they need both in the university and at the workplace, so that they can handle the different communication demands made on them. It should be noted that TC is not a proficiency course.

In this course, students learn how to apply collaborative writing techniques and team oral presentation strategies using the audience-centred approach. The

emphasis is on group or team work in completing a project. There is no exam in the course and marks are awarded based on continuous assessment throughout the semester, on Oral Briefing, Executive Summary, Formal Written Report, Team Oral Presentation, and Written Peer Critique. Because students work in groups, 55% of their individual marks are essentially marks assigned to the group.

Research Tools

● *IVLE (Integrated Virtual Learning Environment)*

The National University of Singapore's IVLE (Integrated Virtual Learning Environment) online learning system was used in this study. The IVLE has various features such as Course Description, Course Schedule, Lesson Plan, Work bin, Announcement, Quizzes, Chat Room, Discussion Forum, etc. All students and staff have access to the IVLE in an intranet environment. For this study, the researcher input relevant resources and materials onto the IVLE site. Besides basic information about the module, such as Course Description and Course Schedule that was put online prior to the beginning of the module, other resources such as exercises, notes, references to hyperlinks, and relevant materials were put online periodically during the semester, usually a week prior to the lesson covering the particular topic. These were mainly supplementary materials for students to refer to outside of the classroom. Samples of past assignments were not made available on the IVLE site. Since the number of students in the module was large and many tutors were teaching the module, how the IVLE site was used depended on the discretion of individual tutors.

● *Survey Questionnaire*

A survey questionnaire comprising five closed questions and two open questions was used as the research tool. The IVLE site of the TC module was used as the term of reference when respondents completed the survey questionnaire. In the closed questions section, respondents were given a number of variables in each question where they indicated their agreement by ticking in the corresponding bracket. In the open questions section, respondents were asked to indicate the online site(s) they found most useful and helpful, and the reason(s). The survey questionnaire was administered during the last week of class.

Respondents

Six classes of second-year Engineering students (N=62) taking a TC module completed the survey questionnaire. All the respondents were familiar with accessing IVLE and had convenient access to both the computer and the Internet. These students were divided into two categories, i.e. control group (N=30) and experimental group (N=32).

Methodology

During a period of 10 weeks, upon uploading of new

materials on the IVLE, students in the experimental group were prompted and reminded during class time to check the IVLE. The students were also briefed on the contents of the resources and materials. The control group, on the other hand, received an email message indicating that there was something new on the IVLE but they were not informed of the contents. The control group was not briefed on the contents nor reminded during class to visit the IVLE.

■ Findings and Discussion

Online Resources and Materials as a Self-Study Tool

Among the 62 respondents, 55% of those in the control group (N=30) indicated that they had not visited the TC IVLE site, whereas all in the experimental group (N=32) had visited and made use of the online resources and materials. 79% of the respondents who did not visit the IVLE felt that what they needed to know had been conveyed either in the course materials (printed text format) provided during the tutorials or verbally by the tutor. Therefore, there was no need to access the IVLE even though there were other resources in it that could further help them in their project.

Among the 45% of respondents in the control group who visited the IVLE, 54% indicated that the IVLE helped them in preparing for and completing their assignments and 61% felt that the IVLE provided them with useful additional resources.

The findings seem to imply that (1) most students would access the IVLE on a need-to basis, and (2) left unsupervised, there is less than a fifty percent chance that students would make use of online resources. These imply that without explicit intervention from the teacher, the online resources had not been effectively used as a self or independent study tool by the TC students.

Factors Prompting Students to Visit the IVLE

As depicted in Figure 1, 92% of the respondents (N=62) would access the IVLE if they felt it provided information pertinent to the completion of their assignments. This is followed by links to other resources and practice exercises.

The finding shown in Figure 1 is further reinforced by data displayed in Table 1. Table 1 ranks the type of

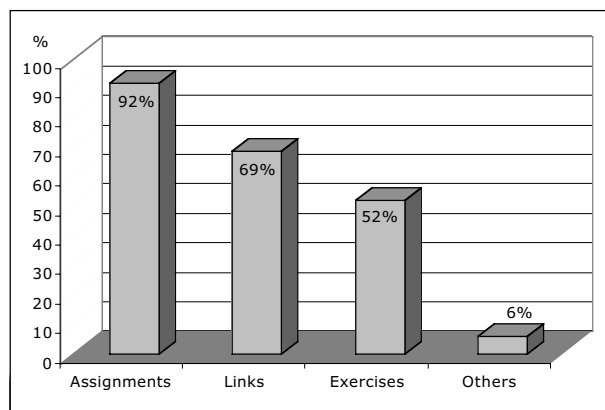


Figure 1 Reasons for accessing the IVLE

information respondents thought should be included in a language and communication online site. The data suggest that respondents were most concerned with information they perceived could contribute to a better grade in the course they were taking. This information includes sample assignments, course information, and announcements. Additional resources like links, recommended (not compulsory) reading materials and interestingly, lecture notes were of secondary importance to them. The lack of importance students accorded to lecture notes could be because technical communication is a non-theory, non-examination based course. Lecture notes are therefore not as useful as sample assignments of past students.

In an open-ended question, respondents were asked to list IVLE site(s) they found the most useful and why. The response rate of this question was 63%. All the IVLE sites indicated by the respondents as most useful were those for technical and engineering modules. None indicated a language and communication site. One of the comments sums up the sentiments of the students well. The respondent mentioned that the most useful IVLE sites for the students were the ones providing solutions to problems posed in the (technical and engineering) tutorials. Because the IVLE site of TC did not provide samples or models that students could emulate, it was deemed less useful.

Type of Information	Percentage
Sample assignments	94
Course information	81
Announcements	77
Information about teachers	74
Links	65
Reading materials	60
Lecture notes	42
Others	3

While the TC IVLE site did serve its purpose of disseminating basic information about the course, students did not appear keen to use it beyond that, without teacher intervention. The convenient and easy accessibility to resources failed to interest many students to extend their learning beyond the scope of their assignments. The respondents' expectation of sample assignments indicates their strong dependence on a format or formula in completing language and communication assignments. This could be a transfer effect from students' experience with other modules providing them with problems and standard solutions.

The results of the survey seem to indicate that the main factor prompting students to access online resources is to search for materials and resources that could contribute to their final grade. Indirectly, this implies the students' great concern for gaining a good grade over

learning. This is why the introduction, integration and implementation of online activities and materials in the classroom should be well thought out so that students can benefit from the potential that technology could offer. Online activities could be interesting and stimulating, and the resources and materials could be beneficial to the students, but students first need to be motivated to explore these activities and resources. This is where the teacher's input is important. The challenge for the language teacher is getting students to maximize the use of Web-based activities and resources while improving their communication skills and cultivating independent learning.

Some Suggestions

Because of the students' great concern for their grades, assigning marks to work done online may be a good starting point to encourage students to participate in CMC and Web-based activities, and to explore the recommended links and resources. Following are some suggestions on effective use of online resources and materials.

Create a Need for Students

Online resources and materials are powerful tools, which if not used effectively, will gradually become mere display items. The first step in increasing the use of online resources is to create a need for students to check or visit them frequently. This can be easily facilitated by putting up announcements and by adding new items or information periodically so that there is always something fresh and new for students to look forward to. Ideally, it should be incorporated into work covered or done in the classroom so that students have the incentive to access the online resources and materials either before or after the class. In addition, during the first meeting with the students, it may be worthwhile introducing them to each section of the site and explain what they could gain by visiting it. For teachers who do not have access to a computer and a screen projector in the classroom, this can still be done by capturing relevant screens from the website and transferring them onto transparencies or printed notes.

Create Activities Requiring Use of Online Sites

Due to the ease of use and its role as a gateway to other Internet resources, the Web has become important for English language teaching and learning (Eastment, 1996). Many activities revolving around the online site can be carried out. These Web-based activities include creating quizzes on the Web, using a dedicated discussion forum as a platform for out-of-class discussions and reflections, and using a chat room for real-time communication activities. In fact, there is a growing body of literature (Stroud, 2001; Dudeney, 2000; Gitsaki & Taylor, 2000; Kitao, 1998; Cotton, 1996) providing ideas on language and communication activities and projects that can be done with the Internet and the World Wide Web.

Reward Students

One of the ways of ensuring that students visit the online site is to test materials put on the Web. Teachers who have experienced creating and maintaining course websites will agree that students make most use of those websites that contain practice quizzes and materials that they will be tested on. The results of this study confirm this. By making it necessary for students to visit the online site for such materials, there is a higher chance that students will browse through other related information of interest to them that they may otherwise have missed.

Make Use of the Interactive Capabilities

"The Web is an interactive tool" (Jor, 1999:23). Online activities should not only offer direct transfer of static materials transferred from the printed texts, but they should also employ the interactive potential of the technology. There are many activities and projects that could be carried out using CMC tools, such as collaborative research projects, e-mail projects, online discussions, and peer reviews, (Skinner & Austin, 1999; Warschauer, 1996a; Warschauer, 1996b; Zhao, 1996; Leppanen & Kalaja, 1995), some of which have been discussed earlier in this paper. The advantage of using CMC tools is that these projects are not bound by geographical limitations. Teachers of colleges and schools in different parts of the world could collaborate on such projects, thus benefiting not only the students but the teachers as well. In fact, studies that look at Web-based classroom interaction (Esling, 1991; Chun, 1998; Lee, 1998) seem to suggest that the students develop confidence and interactive competence in the process of communicating on the Web.

Make the Site Aesthetically Appealing

Speed, user-friendliness, arrangement of navigational icons, and the design or layout of an online site are important in sustaining students' interest and attention. 'Attractive and effective navigational and information design should enable the user to find the information they are after with the minimum of backtracking or unnecessary browsing. Graphics should be optimised for fast downloading, and the overall use of graphics should reflect an awareness of the users' technology' (Kerr, 1999:9). In other words, for an online site to be effective, the design should complement the content and should be sensitive towards the audience it is targeting.

■ Conclusion

Because of the limited scope of this study, the results of the survey may not be conclusive. However, the implications for teacher intervention in the successful integration and implementation of Web-based activities are significant.

Regardless of how attractive a site is, how many resources there are embedded in it, or how powerful and sophisticated the technology is, ultimately, the commitment of the teacher in using and integrating online activities into the classroom has a great influence on the

success of the virtual language learning experience. The emphasis, or lack of it, that the teacher places on Web-based activities is a crucial factor influencing students' attitude toward learning via the Web. The study described in this paper reaffirms the fact that by creating and maintaining a virtual site, yet not actively using the resources and materials embedded in it in the teaching/learning environment, may give students the impression that whatever is put on the site is not important. In short, teachers do make a big difference in the success or failure of online language learning.

The type of information placed on the site and the type of activities carried out using the Web are another indication of the teacher's commitment to maximizing the potential of the Web. Sites that have been created with the mere intention of replacing or substituting printed texts have yet to make full use of what the Web can offer. The move to integrate online language learning into the classroom is not merely a matter of transferring materials from the printed format into the electronic form. It also involves a change of orientation, a different mind set, and in some situations, a review of the curriculum as a whole. Perhaps one of the most important skills the teacher should develop is organization. Much more coordination is required for the teacher to facilitate Web-based projects, especially those that involve communication spanning across geographical borders.

As pointed out by Chapelle (2001:54), "any CALL activity that is assigned and used within a language class is influenced by the way in which the teacher introduces and structures it". Although students of this generation are computer-savvy, online language learning is still very much motivated and driven by the teacher instead of technical and technological frills.

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