

Technology in Language Learning: Wikis and Webquests

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In today's world, computers and the internet play an important role in people's lives, one recent estimate suggesting that in 2007 there were 1.3 billion internet users worldwide (see Internet World Stats). Electronic literacy skills, that is reading, writing, plus the "ability to find, organize and make use of information" using computers (Shetzer, and Warschauer 173) are a part of life for many in the developed world and consequently the use of computers in language learning has "become a fact of life", with the question being asked not "should" but "how can the computer best be used in language teaching?"(Chapelle 1).

Computers were first used in language teaching in the 1960s, and Warschauer and Healey have described 3 phases of computer assisted language learning (CALL). These are behaviouristic, communicative and integrative CALL. The initial behaviouristic stage corresponded to a time when structural linguistics flourished, which emphasised the "system of structures that make up a given language" and the importance of the isolated sentence as the unit of analysis (Kern, and Warschauer 3). Here, informed by the work of behaviourist psychology, learners were provided with practice of repetitive drills. For example, learners could be given a word in the target language and asked to translate it to their mother tongue. In this phase, the principal role of computers was to provide unlimited practice, tutorial explanation and corrective feedback (Kern, and Warschauer 13). However, such activities stirred little excitement among learners and teachers because they merely replicated the types of exercises learners did in the classroom at that time. This, combined with the rejection of purely behaviouristic approaches to language learning both at theoretical and pedagogical levels propelled CALL into a second generation, that of Communicative CALL.

Communicative CALL emerged in the late 1970s and early 1980s and stressed that computer-based activities should focus more on *using* forms than on the forms themselves, teach grammar implicitly rather than explicitly, allow and encourage students to use the language for realistic communication rather than just manipulate prefabricated language, and use the target language predominantly or even exclusively (Warschauer, and Healey). Cognitive theories of language learning which stressed that learning was a process of discovery, expression and development predominated, and typical activities were text reconstruction programmes, which allowed students working alone or in groups to rearrange words and texts to discover patterns of language and meaning. For many, the focus was more on what students did together while working at the computer rather than what they did with the machine (Warschauer, and Healey). However, although Communicative CALL was seen as an improvement on Behaviouristic CALL, it too was criticised for using computers in an *ad hoc* and disconnected fashion.

Integrative CALL has emerged with the arrival of the internet and multimedia. Computer mediated communication (CMC) can take place between learners through technology such as videoconferencing and discussion boards, and consequently sociocultural theories of language learning have been proposed (Lamy, and Hampel 9). Using the World Wide Web (WWW), learners can search through millions of files of authentic material (texts, audio files, and videos) which correspond to their interests and publish their texts for the general public to read.

All these technologies vary considerably in their capacity and accessibility, and how effective they are also depends on the learners themselves, the task, and the institutional setting (Zhao 8). In this presentation, theories of language learning will be discussed in relation to wikis and webquests, materials will be discussed, as will the advantages and disadvantages of using these technologies in language learning.

Learning theories

Two main theories have developed within the field of Second Language Acquisition (SLA) – the first based on cognitive theories, the second influenced by sociocultural theories. Although these two theories have developed to explain traditional language learning in a classroom setting, they

can also be used to examine learning and teaching using new technologies online. Let us now consider the most important ideas of each theory in turn.

Cognitive theories of learning describe how processes within the learner's mind are involved in language learning (Lamy, and Hampel 19), and consider second language input received by the learner, second language output produced by the learner, and interaction between the learner and some other conversational partner as vital (Lamy, and Hampel 20). The Input hypothesis proposed by Krashen (Mitchell, and Myles 165), claimed that exposure to comprehensible input was the only condition necessary for learning. Krashen proposed that comprehensible input slightly ahead of the current developmental stage of the learner, if provided in sufficient quantity, was enough for the learner to unconsciously acquire the language. However, Krashen's theory was criticised for being difficult to test and lacking evidence (Mitchell, and Myles 165), and Long subsequently proposed the Interaction hypothesis, which suggests that interaction involving negotiation of meaning, that is repetition, confirmation and comprehension checks or clarification requests, helps learners modify their output and focus on form (Chapelle 22). Long has also suggested that negative feedback can help language development (Mitchell, and Myles 174). Swain's Output hypothesis (1995) suggests that producing language may make learners conscious of problems in their interlanguage and analyse them, and in addition give the opportunity to try out new forms (Mitchell, and Myles 174) and Schmidt has stressed the importance of noticing features of the input (Mitchell, and Myles 184).

Since the late 1990s there has been a general development in SLA which Block calls the "social turn" (qtd. in Lamy, and Hampel 23). This broader approach focuses on interaction between learners from a social rather than linguistic point of view, and is influenced by the ideas of Soviet developmental psychologists such as Lev Vygotsky (Lamy, and Hampel 23). According to Vygotskian sociocultural theory, learning originates in social activity and instruction is essentially collaborative, with problem-solving under guidance from more capable peers vital for learning (Gánem Guitérrez 232). He proposed that children or unskilled individuals learn by carrying out tasks under the guidance of other more skilled individuals such as teachers, through collaborative talk. He named this supportive dialogue "scaffolding" (Mitchell, and Myles

195), and the domain where the learner is not yet capable of independent functioning but can achieve the outcome given scaffolded help, the “Zone of Proximal Development” (ZPD). Application of this theory to SLA assumes that new language knowledge is jointly constructed through collaborative activity, which may or may not involve formal instruction. Although these ideas originally described learning in children, Warschauer has applied this model to second language learning with adults (471). Other sociocultural theories include Lave and Wenger’s ideas of communities of practice, situated learning and legitimate peripheral participation (Lave, and Wenger qtd. in Zuengler, and Miller 40-41). A community of practice is a group of people who have a common interest and who learn through collaboration over a period of time. Situated learning and legitimate peripheral participation describe the ideas that learning takes place at particular times or in particular places and that participation involves a gradual process of incorporation into a community of practice (Zuengler, and Miller 41). Lastly, Bakhtin’s idea of “dialogism” suggests that language is mutually constructed and that we incorporate the language of others into our repertoire, thus making it our own (Zuengler, and Miller 42).

Calls have been made by various researchers to combine both cognitive and socio-cultural approaches in relation to online learning (Felix 85), and Levy suggests that “both theoretical positions have the potential to inform research and practice in educational computing and in CALL” (qtd. in Lamy, and Hampel 19). From a cognitive perspective, the place of CALL and CMC is to provide language input and opportunities to analyse this language; from a sociocultural perspective, their place is to provide contexts for social interaction and to create new discourse communities (Lamy, and Hampel 28).

The Technology – wikis

A wiki is a series of interlinked collaborative web pages which can be edited by all those with a password, or by all those who visit it, and which becomes a “repository of knowledge, with the knowledge base growing over time” (Godwin-Jones 15). The term ‘wiki’ comes from the Hawaiian phrase ‘wiki-wiki’ which means quick and the most famous wiki is Wikipedia (Parker, and Chao 57). Wikis are easy to set up and use and as no technical skills are required to use

them, participants can focus on the information exchange and collaborative tasks, rather than on the technology itself. The following is a list of the features of PB wikis (<http://pbwiki.com>).

- Joint production of texts, as all those with a password can edit the pages;
- Comments can be included on a page;
- Easy access outside class;
- Formatting tools can be used to personalise a page;
- Images, audio files, slide shows and video can be incorporated;
- Chat room can be incorporated;
- Lack of body language;
- Only one computer can edit one page at a time.

The video available at <<http://www.teachertrainingvideos.com/wikis/index.html>> shows how to set up a pbwiki (which has since been renamed pbworks), and this is an example of a wiki I set up with a group of elementary young learners who were working on past tenses and writing biographies: < <http://famousportuguese.pbworks.com> >.

Some examples of using wikis in the language learning class

This is an adaptation for wikis of a task published in *New Cutting Edge Intermediate* entitled "Design a tour" (Cunningham, and Moor 32-33).

| Class type | Adults |
|------------|---|
| Aims | Design a tour of Portugal or a particular region of the country for a particular group of people. Comment on the work of others. |

Procedure

Learners are introduced to the task of writing a tour of Portugal or a region of Portugal for a particular group of clients. This stage also focuses on useful words and phrases for the task itself.

Learners work in pairs or groups of 3 and discuss how they could design a tour of Portugal or a particular region/city they know well for one of these groups:

- a) A family with young children.
- b) A middle aged couple whose children have left home.
- c) A group of students on a budget holiday.
- d) A retired couple.

They decide on how long the tour will be how many days to spend in each place, the best way to travel and the most interesting things to visit. Internet sites could be consulted at this stage to obtain information on hotels, transport, and museum times, etc.

Learners then go to the computer room where they open their internet browser, go to the wiki already created by the teacher and to which all learners have access. Learners are helped to log on and create pages for their tour information. Learners then write an itinerary for their tour. They could also use the formatting tools to personalise their page and upload photographs to illustrate features of their tour. The teacher would monitor, providing assistance to the learners and noting any good examples of language or any areas in need of input and practice.

Using notes from the previous stage, the teacher would highlight appropriate use of vocabulary and grammar during the activity. An error correction exercise could be used at this stage to focus on form. In addition the teacher could give individual feedback on language via the comments function on the wiki page, thereby individualizing instruction. Practice could be provided of words, phrases and grammar related to the previous stages. Learners would be encouraged to leave comments on classmate's wiki pages on content and language and would be asked to create links between the content on pages, thereby making the project more collaborative. This activity could serve as the beginning of a culturally orientated wiki where learners could add more material over time. Pages about Portuguese (or regional) music, food and drink, customs and traditions could be added and images and audio files uploaded. This could then serve as the basis of a cultural exchange activity in which learners could share their wiki with learners in an English class abroad, thus providing a real audience for their writing. These two groups of learners could collaborate via the chat function to decide what information to include, and how it should be organised, or they could use a wiki page as a discussion

forum. Learners within each country could also use these functions to collaborate during writing, exchanging ideas and creating links between information on different pages. On completion, the wiki pages could be shared and a page for discussion could be started where learners from both groups could leave comments or questions, as on a threaded discussion forum. This interaction could lead to more negotiation of meaning, as learners may be more familiar with the type of errors made by those with the same mother tongue. The teacher would monitor this interaction closely for content, collaboration and language, intervening if necessary to help learners resolve difficulties, and monitoring linguistic problems for remedial work in class.

Additional ideas for using wikis

1. In the task “Talking about someone you admire” (Cunningham, and Moor 42-43) learners could upload a picture and write or record an oral presentation about a person they admired on a wiki page. Their efforts could then be read and listened to by others and a focus on language could proceed as above.

2. In the same way, learners could upload a picture and write or record a presentation about the things they’d hate to be without (Cunningham, and Moor 86-87). This could be done as homework and learners could be shown how to upload pictures of their own personal objects.

3. Students could write a collaborative narrative. In pairs they open a wiki page and write a sentence you have chosen as the first sentence of a story, for example ‘It was a dark and stormy night and...’

Students write until you say ‘Stop’, and then click on another page. Ask learners to read, correct and improve their classmates writing before continuing the story. Continue in this way. Learners can then read all stories online, and vote for the best. Cunningham and Peachey both give ideas for collaborative narrative writing which could be easily adapted to wikis.

4. Learners could be encouraged to contribute to a “virtual vocabulary notebook” as described by Sharma and Barrett (131). Here learners add a new word or expression per week with a

definition, an example sentence and a personal comment. A link to an online dictionary is also provided, and a few learners per week are asked to present their words to the rest of the class. Additional pages could be added where learners asked for help with queries concerning vocabulary or grammar. The teacher or peers could provide answers. A page could be created with links to interesting stories learners had read on the web, or a page with feedback from a face to face lesson where learners together had the opportunity to correct the errors made in class.

Wikis appear to support cognitive theories of language learning. Here, the comprehensible input envisaged as necessary for language learning could be provided via input from peers, the teacher, or learners in other parts of the world. Such input could encourage learners to notice certain features and focus on form. Participants could be encouraged to use wiki functions to negotiate for meaning (Pellettieri 38), or give negative feedback to peers (Notari 132). However, wikis also support socio-cultural theories of language learning. Wikis are essentially tools for collaboration, supporting the idea that learning takes place through social activity. As all members of a wiki can edit or comment on the writing of others, wiki users form a community or practice, and learning can occur in collaboration with more capable peers

Webquests

Dodge defines a Webquest as an “inquiry orientated activity in which some or all of the information that learners interact with comes from resources on the World Wide Web” (n. pag.). Essentially webquests are mini-projects which use World Wide Web sites to help students develop problem-solving and decision making skills. But a webquest requires students to go beyond simple fact-finding to analyse a body of knowledge and create a produce that others can respond to. Some reasons for using webquests in the classroom are that they lend themselves to communication and the sharing of knowledge, they encourage critical thinking skills, and can be motivating as they are often be viewed as being more authentic and therefore for useful to the learner.

Webquests often have four basic stages plus a conclusion/self-evaluation. They are:

Introduction

This sets the scene for the webquest, gives background information and may introduce necessary language.

Task

This details exactly what the learners will have to do. The task should be authentic in nature and may involve a certain amount of role-play.

Process

The Process stage usually includes a set of web sites which learners use to complete the activities and research tasks. The process stage often includes learners in producing an end produce e.g. a presentation or report, which serves as the basis of the evaluation stage.

Evaluation

This stage focuses on a chart which lists goals for the quest and the standards by which performance will be measured.

Conclusion/Self Evaluation

There are plenty of webquest 'repositories' on the internet. A webquest I created for students on a tourism degree course is housed at <<http://zunal.com/webquest.php?user=9535>>.

Working in pairs or groups, learners work collaboratively and may form a community of practice, supporting sociocultural learning theories. By using multimedia, webquests also address different learning styles and are useful in mixed ability groups. As collaboration could also involve learners working together to resolve a linguistic problem, they also support cognitive theories of learning. They provide an authentic setting in which to practise English itself, and electronic literacy skills in English. Input from websites in English could provide comprehensible input necessary for language learning and by producing language, either in writing or orally, learners may become conscious of problems in their interlanguage and analyse them, or try out new forms.

Constraints of using wikis and webquests in the language learning

A lack of technical know-how or technical support can be a negative factor in the use of technology in language learning. However, both technologies described here are very user friendly, and present few problems, even for the most technologically-shy language teacher. The process of writing or editing a wiki page is identical to working on a word document and logging on is similar to accessing an e-mail account. The only technological know-how necessary to use a webquest is the ability to access websites and writing a webquest can be done on a webquest website, or could simply consist of a word document which could be e-mailed to learners.

Perhaps the greatest disadvantage of using a wiki as a collaborative tool is the fact that only one computer at a time can be involved in page editing. This means that when groups are working together, they must do so on separate pages, which immediately causes a feeling of ownership, making collaboration less likely. Notari reports on how difficult it can be to get learners to comment and communicate when using a wiki (131) and others have reported that learners resent peer editing (Lund 48). Collaboration itself is problematic in nature (Felix 88), as there may be tension between individuals. Cross cultural collaboration was on one occasion reported to have the opposite effect of that intended (Belz 90) serving to “reinforce stereotypes” and leading to an eventual breakdown in communication. The lack of non-verbal clues in CMC could further exacerbate this situation. The role of the teacher in monitoring possible areas of conflict and intervening if necessary is therefore important, and this additional claim on teachers’ time could be considered another constraint.

Using a webquest, communication and collaboration takes place via the computer and a written record of this communication exists. This may discourage the use of the mother tongue (L1) in such circumstances. However, using webquests, most collaborative talk takes place between learners face to face, and here there may be more of a tendency to use L1. To discourage this it could be necessary to include evaluation of classroom talk in the final evaluation of learners. The task also needs to be structured in such a way that learners are unable to copy directly from websites, and learners must be warned beforehand that such practices are easy to detect and will lead to the lowest possible marks being awarded.

Conclusion

With the rise of computer-mediated communication and the Internet, the computer has been transformed into a tool for communication with the rest of the world and as a way of accessing huge amounts of authentic target-language information. In addition it gives the learner a way to publish and distribute their own information to an international audience. Because of these new opportunities, many language teachers see great potential in computer technology in teaching. However the answer to the question "Does the use of network-based language teaching lead to better language learning?" (Kern, and Warschauer 2), is not an easy question to answer because the technology itself is not ultimately responsible for the improvements in learning, it is the how the technology is used which is important. If the learner is to benefit from the technologies discussed here, the role of the teacher in monitoring group dynamics, coordinating activities and encouraging critical reflection on language and content is of the utmost importance.

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