EVALUATION OF ACTIVITIES WITH A WIKI SYSTEM
IN TEACHING ENGLISH AS A SECOND LANGUAGE

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Abstract
Internet-based technologies provide an opportunity for the development of innovative teaching materials and for improvements in syllabus design. The use of wikies can turn students into producers of online content, enable peer-to-peer learning, and create a collaborative learning environment. In this paper we report how a wiki was used in two tertiary-level English for Specific Purposes (ESP) courses. During these courses the students performed various web-oriented learning activities (e-tivities) designed to supplement their traditionally delivered language course. At the end of the semester they evaluated the e-tivities and the overall use of the wiki. The results of the evaluations indicated a positive outcome of the use of the wiki and the usefulness of most of the e-tivities that were examined.

1. Introduction

Computer applications and the characteristics of computer-mediated communication (CMC) can promote interactive and student-centred learning, collaboration, and the creation of learning communities [1]. The use of CMC and the Internet can make second language learning more active and facilitate critical thinking, problem solving and the development of writing competence [16]. Still, educators should bear in mind the perspectives of students regarding the use of ICT in second language learning and their need to develop new learning strategies and become self-directed learners [15].

After almost 50 years of computer use in language learning (for a historical perspective, see: [9, 13-46]), the uses of wikies enable novel innovations [11], [17]. For instance, wikies can be used for collaborative writing and can support various content-based and form-based language learning activities like composition writing, the creation of reports, presentations and graphical pages with links to external sources [7]. Wikis are viewed as one of the emerging technologies for online collaboration which is being adopted by language educators [2], [4]. The use of social software like wikies and weblogs creates an opportunity for the constructivist design of problem-based learning activities, and supports social networks of learners [3]. Such online tools enable the implementation of "active" and "rich" pedagogies that can be implemented as "mini-projects", project-based courses, or as a general study environment [13]. Simple wiki-based online learning activities can be incorporated into the syllabus and enable students to produce their own online content, share it with fellow students and contribute to the collective effort of developing online content for a second language learning course.

E-learning activities (*e-tivities*) or *teaching/learning strategies* (see: [6], [12]) are pedagogical activities for the students that are planned by the instructor and that employ diverse media for online or offline content delivery and communication. E-tivities can be observed as an Internet-based alternative to traditional teaching that can encourage problem-based learning, with meaning and knowledge constructed in a specific context [14].

2. E-tivities in an English as a Second Language course

Examples of web-based activities in *English as a Second Language* (ESL) courses include web quests for technical students [10], academic vocabulary lists [5], and collaborative learning activities with a wiki for students of English for IT [8]. All of the mentioned projects have shown that the language teachers/instructors have to take the following issues into consideration: the level of students' motivation; the type of web-based activities to be included in the course; the level of interaction that would best suit the students' needs; the question of whether such flexible, less firmly structured learning would be more successful than, or comparable to, traditional teaching methods.

3. Problem and hypotheses

The main problem of this research was to evaluate the potential uses of a wiki in teaching two *English for Special Purposes* (ESP) courses. The use of a wiki is relatively simple, since no special IT skills are required to produce online content. At the same time, wiki technology has proven its potential in teaching an ESL course [17]. However, learning outcomes and student satisfaction may be dependent on the type of wiki activity. Therefore, the more specific goals of this research were related to the evaluation of a number of e-tivities that could be used in a wiki system. Various types of e-tivities could facilitate vocabulary learning, the development of writing skills, the collaboration of students, peer-to-peer learning, creativity, critical thinking, and problem-solving.

Two hypotheses were defined regarding the problem and specific goals of the research presented in this paper: *"H1 - The use of the wiki in ESL courses is positively evaluated by the students who perform various wiki-based e-tivities"*; *"H2 - Various wiki-based activities are not equally evaluated regarding their usefulness and interestingness for the students who have to perform them"*.

4. Method

The traditional offline (*face-to-face*) teaching of two undergraduate ESP courses was supplemented with several online wiki-based e-tivities. At the end of the semester the students were asked to evaluate various aspects of those undergraduate courses, including their experience with the wiki and the e-tivities which they performed as part of their assignments.

The subjects were undergraduate students enrolled in the 2006/2007 academic year at the Faculty of Organization and Informatics, University of Zagreb, Croatia. One group of subjects were first-year students (N=85) who attended the course "English Language" (Study 1), and the other group of subjects were second-year students (N=28) who attended the course "Business English Language" (Study 2). The subjects in both groups were highly computer literate but had diverse levels of English language proficiency. Both groups were led by the same teacher but in different semesters. Also, they used the same wiki system but with a different learning content and type of online activities (e-tivities). The data collected in Study 1 were presented at an IT conference [8] before Study 2 was completed. The selected data collected in both studies are analyzed together in this paper to see if Study 2 would reproduce some of the results of Study 1.

Two similar course evaluation surveys were designed to collect data on various aspects of the use of the wiki in general, and more specifically regarding the usefulness and interestingness of a number of diverse e-tivities incorporated in two ESP courses. The students' evaluation surveys were used at the end of the respective semesters for both courses.

5. Results

The two studies conducted on different groups of subjects (N=85 and N=28) to investigate the effects of the use of the wiki in teaching ESP courses produced similar results regarding the overall evaluation of wiki-based activities. The average evaluation in Study 1 and Study 2 was in the range 3.4 - 3.8 (between "average" and "good") for the usefulness and interestingness of work with the content of the wiki, the usability of wiki technology and the contribution of the wiki-based activities to the ESP course as a whole (see Figure 1). In relation to the evaluation of *traditional* in-class exercises and out-of-class activities (home assignments), work with the wiki received comparable average ratings in both studies (see Figure 2). The Likert-type response scale that was used for collecting data presented in Figure 1 and Figure 2 was in the range from 1 (very bad) to 5 (very good).

In Table 1 some of the more successful e-tivities in Study 1 and Study 2 are described along with the results of their evaluation regarding the *usefulness* for learning the content of the ESP course and the *interestingness* of the e-tivity. The Likert-type response scale was again in the range from 1 (very bad) to 5 (very good). However, rather small groups of subjects participated in each e-tivity. It can be concluded from the data presented in Table 1 that the use of those e-tivities with a wiki in both ESP courses was evaluated rather favourably since the average ratings were in the range 3.4 - 4.1. It must also be noted that about 25% of the examined e-tivities are not described in Table 1 since they received an average rating regarding their *usefulness* in the range of 2.9 - 3.2 which was considered less satisfactory.
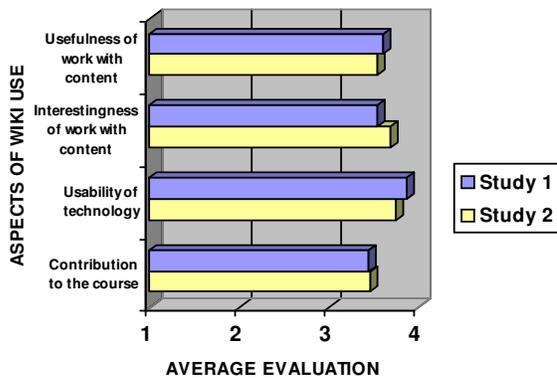
ASPECTS OF WIKI USE

- Usefulness of work with content
- Interestingness of work with content
- Usability of technology
- Contribution to the course

■ Study 1
□ Study 2

1 2 3 4
AVERAGE EVALUATION

Figure 1. Evaluation of different aspects of the use of a wiki in an ESP course in Study 1 (N=85) and Study 2 (N=28); 3 = average, 4 = good

- Work with wiki
- Out-of-class activities
- In-class exercises

■ Study 1
□ Study 2

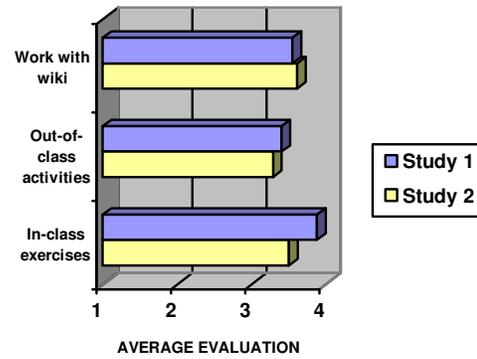1 2 3 4
AVERAGE EVALUATION

Figure 2. Comparison of the work with a wiki with other in- and out-of-class activities in Study 1 (N=85) and Study 2 (N=28); 3 = average, 4 = good

Table 1. Description of wiki-based e-tivities in an ESP course and the results of their evaluation

E-TIVITY	DESCRIPTION OF THE TASK AND ACTIVITIES OF THE STUDENTS IN STUDY 2
Hotlist (N=16) Useful: **3.4** Interesting: **3.4**	By conducting Internet searches, students create a *hotlist* of six valuable web-based textual resources on a given course-related topic (e.g. *the stock exchange, Airbus, free-market woes*). The list students create is used as a reserve of resources and should contain the title of each web resource, its URL, hyperlinks, a brief annotation about each website that describes the content and the value of that particular resource, etc.
Zip/unzip file (N=14) Useful: **3.5** Interesting: **3.9**	Students are divided into pairs and each pair is given a couple of individual sentences that need to be rewritten so that they are made much shorter (*'zipping'*). Each pair posts the short version of all the given sentences on their wiki page. Another pair reconstructs the original sentences on the same wiki page by adding as many words as possible (*'unzipping'*). Finally, the first pair publishes the original sentences on the same wiki page.
Brainwriting (N=14) Useful: **3.8** Interesting: **4.1**	A written creativity technique called *brainwriting* is used to generate a list of alternative solutions to a problem concerning a course-related topic. Students work in pairs. The first pair receives the problem via e-mail, offers at least two suggestions to the problem and provides an explanation for their solutions by either adding a couple of totally new ideas or elaborating some of the ideas offered so far. The first pair forwards these ideas, along with the original problem, to the next pair on the list who adds one or two additional solutions, then forwards it to the next pair within the following 48 hours, and so on, until a long list of solutions to the problem is created. The last pair posts the entire list on a new wiki page.
Chain letter (N=11) Useful: **3.6** Interesting: **4.1**	A *chain letter* is created by students to review the material on a course-related topic. This type of e-tivity is aimed at responding to an open-ended review question and formulating a new review question. The first pair receives a set of questions by the teacher via e-mail. This pair answers the questions using the course content and writes a new set of relevant questions, forwarding it to the second pair via e-mail within the next 48 hours. The last pair on the list completes the task by answering the questions from the previous pair and posts the entire chain letter on a separate wiki page so all can see the work created.
The Debate (N=14) Useful: **3.4** Interesting: **3.8**	All the students in a group engage in a virtual discussion (*debate*) on a controversial topic. The group is divided into two opposing teams. Each of the two teams is assigned a role – all the members of one team *(Pro team)* are in favour of a given proposition provided on a separate wiki page, whereas all the members of the other team *(Contra team)* are against it. The Pro and Contra team defend and attack the given proposition respectively by drawing on relevant arguments from referenced sources. The arguments are presented on a wiki page.
Storyboard (N=14) Useful: **3.7** Interesting: **3.8**	In this e-tivity, elements of *storyboard*, role play and problem solving are combined as students write a reply to a letter of complaint. Students are supposed to properly address the problem stated in the letter of complaint posted on a wiki page by their colleagues participating in an analogous e-tivity of writing a letter of complaint. The problem should be sales- or customer-related. It should also contain all the necessary parts of a formal letter as presented in a tutorial in an appendix to the instructions for this e-tivity.

5. Conclusion

The potential uses of a wiki and the applicability of selected e-tivities in ESP courses were investigated on two groups of subjects. The data analyses of the results of students' surveys confirm the first hypothesis (H1) since most of the students who performed various wiki-based e-tivities positively evaluated the use of the wiki in ESP courses (see Figure 1 and Figure 2). The second hypothesis (H2) was also confirmed since most of the evaluated e-tivities received rather favourable ratings (see Table 1), while for some e-tivities the ratings were less satisfactory.

It can be concluded that the use of a wiki in ESP (and ESL) courses is a useful and innovative way of enriching the learning environment of students with adequate ICT skills and access to the Internet. Besides contributing to the learning of vocabulary and to the development of writing skills, the e-tivities engaged the students more fully with the topics and issues of the ESP courses, enabled online collaboration and peer-to-peer learning, facilitated their critical thinking and inspired creativity in the creation of wiki pages. However, the use of a wiki in ESP courses required careful planning and preparation, monitoring and moderating of students' work, as well as reflection and adequate feedback to the students after they had completed their wiki-based assignments.

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