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Mobilising students’ grammar skills through collaborative e-tivities with Web 2.0 tools

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Abstract

The aim of the paper is to present experiences using Web 2.0 tools in a tertiary ESP course. These tools were implemented in a hybrid university course through e-tivities, i.e. online pedagogical activities performed by individuals or teams of students. The current developments and trends in education brought about by the emerging Web 2.0 technologies are described along with their impact on the educational domain. In particular, the potential of employing such technologies in developing linguistic skills through collaborative learning is illustrated through examples of grammar-based e-tivities. Preliminary results are provided of students’ evaluation of the e-tivities using six different visualisation tools. Notwithstanding the challenges of such an innovative approach to grammar, integration of Web 2.0 in language instruction presents a promising alternative to conventional teaching practice where grammar is concerned, with benefits in all three psychological domains of learning.

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1. Introduction

Over the last decade, Web 2.0 tools like wikis and blogs have been a vehicle of innovation in many areas of online education. As a result, the predominantly top-down control and information flow in traditional web-based education is gradually shifting toward bottom-up, learner-driven and collaborative educational activities. Two features of this novel educational and technological concept are relevant for

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foreign language instruction: collaboration in generating linguistic content, and peer-to-peer interaction with that content for learning and assessment purposes.

Tim O’Reilly and MediaLive International coined the term Web 2.0 in 2005 to describe the concept of this new web. Its basic characteristics (O’Reilly, 2005) include software as a service (Saas), dynamic and mixed data sources (Mashup), the creation and sharing of data that belong to users, and making friends and communities via the Internet. The traditional way of teaching no longer provides a successful integration of ICT in the classroom (Fernández Díaz, 2009). Today’s educators have access to more advanced and modern technologies (Gütl & Chang, 2008). The use of Web 2.0 has opened a new chapter in online learning called e-learning 2.0 (Downes, 2005). This new paradigm provides a new dimension in education where students can take online notes and work together on them, give and receive feedback, ask questions and discuss ideas, as opposed to the traditional education system that required essays, papers, tasks, etc. to be submitted to teachers without the opportunity to access them afterwards.

According to a European study (Heid et al., 2009) on the impact of the growth of social computing and Web 2.0 applications and technologies accompanying it, a variety of skills are developed in the new educational landscape, including meta-cognitive and higher-order skills (particularly learning to learn and self-organisation) that result in the increased motivation of learners and educators, “allowing for new and diverse learning and teaching experiences, that are… personalised and collaborative, and trigger the discovery of new learning pathways”. The main challenge for educators has become how to take pedagogical advantage of the new generation of web services to create new formats of more individualised and collaborative distance learning programs (Coutinho, 2009). It must be noted that various Web 2.0 tools address diverse needs of language learners and are suitable for tasks of different complexity. They can be used to (a) structure/organise the learning content, (b) address different learning styles, and (c) support learning activities designed according to various levels of the revised Bloom taxonomy (1956) of three educational domains: affective, psychomotor and cognitive. In order to reconcile traditional pedagogical practices with the educational potential of emerging technologies, Bloom’s Digital Taxonomy (Churches, 2008) has been proposed. In addition, there is a growing tendency to integrate technology as the content and not just the means for enabling language students to adopt skills they can use in “continuing academic work careers and personal lives” (De Szendeffy, 2007).

In the project presented in this paper, Web 2.0 tools are recognised as an optimum means to aid students in developing and organising their linguistic competence, primarily their writing skills. The Engwiki project (2007) has been implemented in several hybrid undergraduate ESP courses at the Faculty of Organization and Informatics at the University of Zagreb, with the aim of complementing conventional written activities and enhancing collaboration in large mixed-level groups of students. The conceptual framework and pedagogical format for the implementation of ICT in language learning within the Engwiki project are e-tivities, i.e. online pedagogical activities performed by individuals or teams of students intended for inter/active learning across diverse academic disciplines (Salmon, 2002). Over 25 different collaborative e-tivities were designed and evaluated in the Engwiki project in the period 2006–2009 (Kovacic et al., 2007; Kovacic et al., 2008). However, in the academic year 2009–2010, several other Web 2.0 tools were introduced into the design of grammar-related e-tivities, such as mind-mapping tools (Bubbl.us; Mindomo), block diagrams (Gliffy), online cartoons from Flickr photos (Bubblr), adding audio to slide presentations (SlideSix), and the tagging of video or audio files (Veotag). A Moodle system was used to provide instructions and to organise students’ online activities, while a wiki of the Engwiki project was used to present the artefacts that the students created using the Web 2.0 tools. The features that made them suitable for implementation in out-of-class activities aimed at grammar practice among a

1 The implementation of the Engwiki project and the dissemination of its results and experiences has been supported by iProject – a Portal for the testing of Web 2.0 tools and the promotion of education with Web 2.0 (Project leader: Prof. Goran Bubas, PhD).
large group of students are: their accessibility, visual appeal, multimedia features, simplicity of use, the
ability to share content and develop it collaboratively, etc.

The shift towards introducing grammar activities supported by ICT was primarily motivated by the
following goals:

- identifying problem areas in understanding grammar among non-language majors;
- enhancing students’ grammar and metalinguistic skills;
- testing the applicability of Web 2.0 tools in interpreting grammar topics;
- reorienting traditionally teacher-centred grammar instruction to a learner-centred approach;
- transferring knowledge between several generations of students though an online grammar
  resource;
- fostering collaboration through activities that integrate students’ core (ICT) competencies and
  linguistic skills.

2. Method

In the academic year 2009–2010, grammar e-tivities were implemented in the hybrid undergraduate
ESP course English Language I for students in the Information Systems study programme. Students were
able to choose from 40 grammar topics that needed to be represented by using six Web 2.0 tools, all of
which can be used for the visualisation of grammar content. These out-of-class grammar e-tivities were
implemented in two rounds, so that each student could participate in two of them, using two different
tools. The artefacts generated had to be accompanied by a textual description on a wiki page within the
Engwiki resource. The students had been provided with ICT support. Within 7 weeks, a total of 204
students submitted their work via the wiki system. At the end of the course, a survey was conducted
among students to evaluate different aspects of the implementation of the e-tivities and Web 2.0 tools
used, as well as students’ assessment of the contribution of particular e-tivities to the course in general.
The number of students who participated in the e-tivities based on six Web 2.0 tools and the average
rating (on a scale from 1=very bad to 5=very good) are as follows:

- E-tivity 1 – making mind maps (Bubbl.us): n=81, average rating 3.14
- E-tivity 2 – making flowcharts (Gliffy): n=44, average rating 3.09
- E-tivity 3 – making cartoon strips (Bubblr): n=26, average rating 3.22
- E-tivity 4 – making mind maps (Mindomo): n=67, average rating 3.03
- E-tivity 5 – publishing your presentation (SlideSix): n=42, average rating 3.42
- E-tivity 6 – tagging a video (Veotag): n=34, average rating 3.09.

As can be seen from the list, the e-tivity in which students published their presentations online,
accompanied by audio and notes, was ranked somewhat better than other e-tivities, though these received
a fairly favourable rating as well. An example of an online presentation, which not only represents an
integration of writing, speaking, presentation and ICT skills, but also covers an authentic ICT-related
topic, is the lexical analysis of the ECDL syllabus. Other successful examples of grammar e-tivities
include: a flowchart in which distinguishing between two types of lexical items was elaborated as a
decision-making process (Acronyms and abbreviations); a mind map created in the Mindomo mind-

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2 http://e.foi.hr/engwiki/index.php/Collocations_in_ECDL_Syllabus_7
3 http://e.foi.hr/engwiki/index.php/Acronyms_vs._Abbreviations_2
mapping tool in which the topic of Articles was presented by using the tool’s rich editor which enables icons, photos, videos as well as formatting to be added to the mind map. Selected examples of student work in all the six tools and their description can be found on a dedicated Engwiki page.

3. Conclusions

Benefits of the use of Web 2.0 tools in grammar e-tivities are related to both cognitive and affective domains of learning and could lead to an enhanced learning experience, with students acquiring new ICT and data structuring skills transferable beyond ESP courses.

This personalised and creative approach to grammar enabled students to process linguistic content at several different levels of complexity. Making students’ work accessible and visible to others further enhanced the collaborative effort they were engaged in, taking the language classroom one step closer to a learning community. The drawbacks of such a learner-centred approach to grammar were mainly related to the need for greater learner engagement, as students were simultaneously faced with a new medium for interpreting grammar as well as the new ICT tools. Such an integration of skills proved demanding for students whose competencies in both areas are not well developed. Some technical difficulties in using Web 2.0 tools were also reported. In the current stage of the Engwiki project (in the winter term of 2010–2011), even more effort will be made toward motivating learners to participate in each other’s work and to contribute to the existing repository of grammar-related artefacts. Owing to the increased possibilities for interaction among participants and access to resources, the project described in this paper fully corresponds to the “integrative stage” of computer-assisted language learning (Warschauer, 1996), and by emphasising “collaboration as its core method of learning” (Miyake, 2007) it matches the paradigm of computer supported collaborative learning.

References

Bloom, B. S. (1956). **Taxonomy of educational objectives: The classification of educational goals.** Chicago: Susan Fauer.

Churches, A. (2008). *Bloom’s taxonomy blooms digitally.* Retrieved from http://www.techlearning.com/article/8670

Coutinho, C. (2009). E-Learning 2.0: Challenges for lifelong learning. In *Proceedings of Society for Information Technology & Teacher Education international conference* (pp. 2768-2773). Chesapeake, VA: AACE.

De Szendeffy, J. (2007). *A practical guide to using computers in language teaching.* Ann Arbor, MI: University of Michigan Press.

Downes, S. (2005). *E-Learning 2.0.* Retrieved from http://www.elearnmag.org/subpage.cfm?section=articles&article=29-1

Engwiki Project. (2007). *Engwiki project main page.* Retrieved from http://e.foi.hr/engwiki/index.php/Main_Page

Fernández Díaz, E. (2009). *Collaborative projects and web 2.0: A social learning environment.* Retrieved from http://www.formatex.org/micte2009/book/1287-1290.pdf

Gütl, C., & Chang, V. (2008). The use of web 2.0 technologies and services to support e-learning ecosystem to develop more effective learning environments. In M. Boominathan, R. Kannan & S. Balasundaram (Eds.), *Proceedings of ICDEM 2008* (pp. 145-148). Tiruchirappalli: Bishop Heber College.

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4 http://www.mindomo.com/view.htm?m=9d2df568f053481abc2a69ff1f920656
5 http://e.foi.hr/engwiki/index.php/Grammar_Web_2.0
6 http://e.foi.hr/engwiki/index.php/Grammar_e-tivities
Heid, S., Fischer, T., & Kugemann, W. F. (2009). *Good practices for learning 2.0: Promoting innovation*. Seville: European Commission Joint Research Centre Institute for Prospective Technological Studies.

Kovacic, A., Bubas, G., & Zlatovic, M. (2007). *Evaluation of activities with a wiki system in teaching English as a second language*. Retrieved from http://www.leonardo-lets.net/ict/common/download/AndrejaKovacic.pdf

Kovacic, A., Bubas, G., & Zlatovic, M. (2008). E-tivities with a wiki: Innovative teaching of English as a foreign language. *VISION IT: Visions for use of IT in higher education* (pp. 141). 14th congress of the European University Information Systems Organisation (EUNIS), Aarhus.

Miyake, N. (2007). Computer supported collaborative learning. In R. Andrews & C. A. Haythornthwaite (Eds.), *The Sage handbook of e-learning research* (pp. 248-265). London: Sage Publications.

O’Reilly, T. (2005). *What is web 2.0: Design patterns and business models for the next generation of software*. Retrieved from http://oreilly.com/web2/archive/what-is-web-20.html

Salmon, G. (2002). *E-tivities: The key to active online learning*. London: RoutledgeFalmer.

Warschauer, M., & Healey, D. (1996). Computers and language learning: An overview. *Language Teaching, 31*, 57-71.