Exploring Digital Literacy
in Student-Teacher ICT Projects

Christopher Allen* and David Richardson

School of Language and Literature, Linnaeus University, Kalmar, Sweden

Abstract. This paper reports on the evaluation of student teacher information and communications technology (ICT) projects in English language didactics in accordance with recently proposed frameworks of digital literacy in both language-teaching and wider working and educational contexts (Dudeney, Hockly, & Pegrum, forthcoming; Hockly, 2012; Pegrum, 2011). The challenge for teachers, regardless of what stage they are at in their careers, is to be able to operationalize in Hockly's (2012) terms the notion of digital literacy in the foreign language classroom while at the same time encorporating these concerns into a task-based framework in which communication is balanced with a focus on linguistic form. Students in their second term of studies in language didactics were given the task of creating an ICT-based project in English, encorporating both internet and classroom-based inquiry activities aimed at either lower or upper secondary levels in the Swedish school system. The project brief given to the student teachers more specifically addressed their ability to plan and organize a set of learning activities around an extended webquest in addition to demonstrating the procedural usage of a wide range of ICT tools such as wikis, blogs, podcasts, etc. in English language teaching (ELT). The four areas of language-, information-, connection-, and re-design-based digital literacies, as proposed by Pegrum (2011), form the basis for the evaluation of the projects.

Keywords: digital literacy, language teacher training, ICT.

1. Introduction

This paper examines a group of English student teachers' perceptions of digital literacy through the design and implementation of ICT-based project work as part of their coursework assessment during Spring 2012 at a university in southern Sweden.

In the decade which has passed since Prensky's (2001) distinction between 'digital natives' and 'digital immigrants', attention has increasingly been focused on the educational prerequisites of a generation of young people born into a world of computers

* Contact author: christopher.allen@lnu.se

and mobile telephony. With this in mind, there is a widespread acknowledgement that we need to address the challenges of responding to an increasingly digitalized and globalized world. The notion of digital competence is but one of a number of evolving professional competencies as exemplified by the PISA framework put forward by the OECD* in the context of a commitment to lifelong learning. This paper draws extensively on the four part sub-division of digital literacies as put forward by Hockly (2012):

- Language-based literacies;
- Information-based literacies;
- Connection-based literacies;
- (Re-) design-based literacies.

In Eshet-Alkalai and Chajut's (2009) terms, *Language-based literacies* encompass photo-visual skills and include not only 'traditional' reading and writing transferred to the graphical display environment but also knowledge of the 'new' online genres such as blogs, wikis, tweets, etc (Belshaw, 2011). In contrast to language-based literacies, *information-based literacies* include the ability to make sense of digital information such as using search engines such as *Google*, tagging digital resources, etc. In recent years, the rising importance of social media and networking has been recognised in the third of the groups outlined above, that of *connection-based literacies*.

The final area of digital literacy in Hockly's (2012) framework is that of *(re)-design-based literacies*. The example given here is the 'repackaging' and 'recasting' of existing digital content, such as film clips from *YouTube* in video and audio content production, and a sensitivity to potential intellectual property freedoms and creative commons considerations as a consequence of this editing process.

2. Method

As part of the course assessment of the language teaching methodology module (9 ECTS credits), student teachers were given the task of planning an extended teaching project making extensive use of online / ICT tools and resources for their intended teaching level (i.e., secondary or upper secondary level) in English in the Swedish state school system. This included a theoretical and historical overview of CALL based on Levy (1997), underpinning more recent surveys of ICT in English and modern language teaching (Dudeney & Hockly, 2008). Digital literacy as a concept was introduced in the form of a *PowerPoint* presentation within a general focus on ICT.

---

* OECD (2005). The OECD Program Definition and Selection of Competencies.The definition and selection of key competencies. Executive summary. 30. June, 2005. Retrieved from http://www.oecd.org/dataoecd/47/61/35070367.pdf

3. Results and discussion

3.1. General

The nine projects reviewed were all heavily focused around geographical themes such as planning international travel itineraries as an overarching task / extended webquest. Activities mainly centred around the planning, feasibility, evaluation and budgeting of excursions abroad, typically in groups of 4-6 pupils, based on the structured retrieval of information available online. Specific aspects of digital literacy taken up in the projects will now be described and illustrated below, based on the four part sub-division of digital literacy described by Hockly (2012).

3.2. Language-based literacy

A number of projects made references to specific online writing genres, with a particular focus on blogs and wikis. The emphasis here was on productive skills in producing these online genres based on the information retrieved as a result of the search in response to the webquest task. A number of student teachers seemed to take for granted, however, that pupils would automatically recognize these genres as well as being able to assemble the retrieved information into the form of a text. One project on travel to South America recognized the need to provide mediating questions as a 'scaffold' in socio-cultural terms in the writing process.

While many pupils are no doubt aware of *Wikipedia* as an information source, it is not automatically the case that they are familiar with the type of collaborative writing activities involved in constructing a wiki. Online collaborative writing activities need a more careful and explicit set of instructions and considerations of group dynamics on the part of the teacher, although these were largely absent from the project outlines submitted.

3.3. Information-based literacy

The most important aspect of digital literacy as explored in the projects was information-based literacy. All projects involved some sort of internet-based / digital search of available information as a task to be fulfilled. Student teachers were very much influenced by the notion of webquests (Dodge, 1997) and a number of examples were loosely based on webquest project outlines[*] retrieved from online webquest repositories. Student projects were characterized by a lack of selected hyperlinks to guide pupils in the achievement of the task outcome. Teacher selection, 'filtration' and management of the potential information overload was an important aspect of information-based literacy often overlooked in the projects. Little consideration was given to assisting pupils in developing their skills to critically evaluate the trustworthiness of information sources.

---

[*] See http://www.webquest.org or http://www.questgarden.org

3.4. Connection-based literacies

Surprisingly, for a group of teachers representing a generation supposedly immersed in social networking, this aspect of digital literacy received little attention in the projects. Only one project, the planning of a round-the-world itinerary, actually mentioned *Facebook* as a means of sharing or disseminating ideas and information.

As with other aspects of the projects, little attention was given to how this sharing might take place in practice, such as the choice of the *Facebook* group administrator, what aspects of information should be shared, size of pupil groups involved, etc. Another project saw *Facebook* as a negative aspect of the classroom, a potential distraction for other more focused classroom activities. None of the projects reviewed mentioned mobile learning.

A number of projects did, however, bring up the possibility of using podcasting, which is another way of disseminating information via a node. In the light of a planned school visit to Auschwitz, one student teacher discussed the use of podcasting by groups of students working with a podcasting tool such as *GarageBand* or *Podomatic*.

There was little discussion however of the extent to which podcasting could involve scripting, recasting and drafting of linguistic / news information for a wider broadcast audience. The teacher's role portrayed here seems to be more consistent with that of a technician rather than language expert.

Information-dissemination via video conferencing is another important facet of connection-based literacy. However, only one project referred to video conferencing, using the *Adobe Connect* tool. This was surprising given the fact that *Adobe Connect* had been extensively used as a sociolinguistics study module forming part of the student teachers' degree programme.

3.5. (Re-) design-based literacy

This was a very much underdeveloped area of digital literacy in the student teacher project work. The reworking of digital video material using widely available software such as *Movie Maker* for Windows or *iMovie* for Mac and sound files using *Audacity* comes into this category but was not given an extensive focus during the 'hands-on' ICT workshop. Student teachers did not appear to have considered the possibilities involved in the editing and repackaging of existing digital material for educational purposes, as a complement to podcasting for example.

4. Conclusions

From this limited pilot study it would appear that the notion of digital literacy among the English student teachers was firmly equated with information search and retrieval in the form of extended webquests along with the consumption and production of blogs and wikis as online genres. Projects however need to contain a much more detailed prior specification and structuring of hyperlinks to avoid pupil information overload

and digression from the task. Similarly, online writing activities require greater familiarity with the linguistic and textual aspects of online genres, as well as more detailed instructions to facilitate their implementation and management as learning activities to supplement classroom tasks.

Connection-based literacy involving social media was an underexplored area of digital literacy, presumably because student teachers see social media sites either as part of their leisure identities rather than their professional practice as language teachers. Future teacher training courses in the ICT area should also strive to emphasize the connecting possibilities afforded by *Facebook* and *Twitter* while counteracting their potentially distractive influence in the classroom. Future explorations of digital literacy in terms of language teacher training could also focus on the use of digital video and audio software to permit reworking of existing digital materials.

References

Belshaw, D. (2011). *What is digital literacy? A pragmatic investigation.* Unpublished Ed.D thesis. Durham University. Retrieved from http://neverendingthesis.com

Dodge, B. (1997). Some thoughts about WebQuests [Weblog]. Retrieved from http://webquest.sdsu.edu/about_webquests.html

Dudeney, G., & Hockly, N. (2008). *How to teach English with Technology.* Harlow: Pearson Longman.

Dudeney, G., Hockly, N., & Pegrum, M. (forthcoming). *Digital Literacies* Harlow: Pearson Longman.

Eshet-Alkalai, Y., & Chajut, E. (2009). Changes over time in digital literacy. *CyberPsychology & Behavior*, *12*(6), 713-715.

Hockly, N. (2012). Digital Literacies. *ELT Journal, 66*(1), 108-112. doi: 10.1093/elt/ccr077

Levy, M. (1997). *Computer-Assisted Language Learning: Context and Conceptualization.* Oxford: Oxford University Press.

Pegrum, M. (2011). Modified, multiplied and (re-)mixed: social media and digital literacies. In M. Thomas (Ed), *Digital Education: Opportunities for Social Collaboration*. New York: Palgrave Macmillan.

Prensky, M. (2001). 'Digital natives, digital immigrants' [Weblog]. Retrieved from www.marcprensky.com

CALL: Using, Learning, Knowing
EUROCALL Conference, Gothenburg, Sweden
22-25 August 2012, Proceedings
Edited by Linda Bradley and Sylvie Thouësny

The moral right of the authors has been asserted