In this paper, I describe a university course designed to facilitate awareness of the language learning process through the examination and adoption of various technology-based language learning tools (TLLTs). I examine how three overlapping and complementary learning environments were used to facilitate the course and suggest that this arrangement of learning environments promotes reflection on language learning. The “Computer Assisted Language Learning” course was designed for third year university students majoring in English. The course was not a content-based course, but instead designed for language learners in order to (1) raise students’ awareness of some TLLTs, and (2) to support students in critically evaluating their own language learning needs and selecting appropriate strategies and tools. Although data were not systematically analyzed, there was evidence that the learning environments provided an effective opportunity for students to reflect on the language learning process. In this article I suggest that there are some benefits of using a combination of learning environments and call for further research investigating levels of reflection using the environments.

Appropriate use of CALL

The Internet offers a large number of resources for language learners and has great potential for language learning and immersion opportunities outside of scheduled class time. Due to the range of the material freely available online, learners have a range of websites and other TLLTs at their disposal that could be of interest and ideal for meeting their language-learning needs. However, due to the amount of

Learning environments that facilitate reflection on language learning

Jo Mynard
Kanda University of International Studies
jomynard@gmail.com
material available, it is not necessarily easy for the learners to (1) locate the websites and other TLLTs and (2) use them appropriately to address their language learning needs (assuming that they have identified what these are). Even language learners who are competent at performing Internet searches, may not necessarily find the most useful websites and TLLTs through using common keywords (Howard, 2011). Teachers could provide links to useful websites on class or institutional pages, but these general websites may not necessarily be useful for all of the learners in the class. Even if the TLLT has great potential for enhancing learning in a skill area that a learner is targeting, the learner still may not be familiar with how best to use the resource.

Course aims

These considerations were taken into account when designing an elective course for third year students majoring in English language at a small private university in Japan. The course was designed for English language majors who wanted to continue to develop their language skills even after graduation. Specifically, the course was designed to foster skills needed for lifelong learning while capitalizing on the wealth of material on the Internet.

The main aims of the courses were:
- to raise students’ awareness of TLLTs
- to enable students to critically evaluate their own language learning needs
- to help students to select appropriate methods, materials and tools to match their language learning needs

Constructivist learning

The course design drew on constructivist learning theories. Constructivism is defined by Fosnot (1996) as a "theory of knowing" (p.15) and is a way of examining how humans learn through investigating cognitive processes that are activated when individuals make sense of new information. In a constructivist learning environment learners are given opportunities to reflect on their experiences and to construct and reconstruct their own understanding of concepts. Learning occurs when an individual accommodates or changes pre-existing schematic representations to create new schemata (Adelman Reyes & Vallone, 2008). Interaction with others and exposure to different perspectives is crucial to the process. Learners bring with them their own beliefs and experiences to the learning environment along with aptitude, feelings, ideas and other factors based on their experience and the CALL course described in this article was designed to draw on these previous experiences. The course was designed to occur within a rich learning environment that gave ample opportunities for the students to interact with other people (members of the class and outsiders) and engage in reflection and construction of meaning.

Reflection

Reflection is defined by Louden (1991) as “a mental process which takes place out of the stream of action, looking forward or (usually) back to actions that have taken place” (p. 149). It involves further processing of a person’s knowledge, understanding and emotions (Moon, 1999). In this course, I interpreted reflection to be an ongoing process which, as Moon (1999) states, may have a number of potential outcomes. Some of the outcomes of
reflection relevant to this course were: critical evaluation, metacognition, decision-making and problem solving. The reflective element of the learning opportunity is essential for learning to occur (Jonassen, 1996; Moon, 1999) and for learners to develop autonomy (Benson, 2011; Kohonen, 1992). Researching whether learners are reflecting on their learning is not an easy task as much of the reflection is internal. Studying learner reflective journals (Moon, 1999; Palfreyman, 2005) and blogs (Mynard, 2007; 2009) has been found to be an effective way to investigate evidence of reflective processes. Think aloud protocols may also be a useful method (Hurd, 2011).

**CALL environments and reflection**

Careful attention was paid to the kind of learning environment that should be created in order to facilitate reflection and experimentation with language and TLLTs much as Schwienhorst (2008) advocates. Debski (1997) also notes:

> [An] integration of contemporary computer technology and foreign language education is most likely to take place in learning environments in which students can easily [...] combine learning a language with reflection about language learning strategies. (Debski, 1997, p. 42)

In order to facilitate this kind of interaction and experimentation, I created a blend of learning environments. Blended learning is discussed in more detail later in the paper.

**Social networking sites (SNS)**

Although social networking sites (SNS) are a relatively recent resource available to English language learners and educators and much more research is clearly needed, there have been a number of reported benefits for learners. Firstly, the environment may offer opportunities for learners to share and support each other (Halvorsen, 2009) and adapt information related to digital information and resources (Halvorsen, 2009; McLoughlin & Lee, 2008). SNS are also reported to promote communication and collaboration as learners become active members of an online learning environment (Alm, 2006). The environment is also reported to provide opportunities for reflection in the target language (Arnold & Paulus, 2010) and also to create an environment where learners feel comfortable participating in online discussions and giving their opinions (Promnitz-Hayashi, forthcoming).

Student attitudes towards using SNS for language learning is worthy of further investigation. For example, Warschauer and Liaw (2010, citing studies by Halvorsen, 2009 and Harrison, 2008) suggest that SNS which promote interaction with people already in the learners’ network may be more beneficial than SNS where students interact with strangers due to issues of trust (Warschauer & Liaw, 2011).

**Appropriate use of SNS**

Educators must consider whether learners would be comfortable using SNS and sharing personal information with teachers and classmates. Research by Hewitt & Forte in 2006 suggested that social networking should be kept for informal socializing as students expressed a sense of anxiety when expected to interact with teachers online and wanted to keep personal lives separate. In another study by Lockyer and Patterson (2008), the researchers
found generally positive outcomes associated with the use of Flickr as a social networking platform for class activities. Thomson (2007) writes that today’s students belong to the Net Generation and are accustomed to using Web 2.0 tools in other aspects of their lives and expect to use them for educational purposes. Thomson notes that educators who choose not to use such technology may be ignoring a valuable resource.

**Blended learning**

The class was designed to combine classroom-based work with some independent study and also using TLLTs (which included online learning environments and virtual spaces). The term that is usually used to refer to a combination of learning environments is ‘blended learning’. The term ‘blended learning’ has contested definitions (Driscoll, 2002), but as I decided to draw on a combination of face-to-face and virtual environments, Banados’ (2006) definition describes my situation best; the blended learning environment was “a combination of technology and classroom instruction in a flexible approach to learning (Banados, 2006, p. 534). Figure 1 depicts how I originally imagined the course during the initial planning stages; as two overlapping circles with some activities taking place in a face-to-face scenario while drawing on relevant TLLTs.

![Figure 1. The original intended blended learning environment](image)

I originally envisaged two learning environments, face-to-face and online, but shortly after the course began, I realized that there were actually three distinct types of environments as I will discuss later in the paper. First I will describe the course design.

**Course design**

The course was scheduled for two, ninety-minute classes per week for fourteen weeks and the schedule was divided into two parts:
**Part 1 (weeks 1–7)**

**Focus**
Examination and critical evaluation of TLLTs according to how they could potentially be used to target a language learning skill area

**Class activities**
- Largely teacher directed activities
- Focus on a different skill area each class
- Trial of TLLTs
- Individual, group or pair activities
- Group, pair or class discussions

**Follow-up (one or more following each class)**
- Mini presentation
- Formal presentation
- Blog entry
- Comment on at least one other student’s blog
- Written report

**Part 2 (weeks 8–14)**

**Focus**
- Evaluation of language learning needs (with help from the teacher)
- Development and implementation of a personalized *learning plan*

*The learning plan included the following elements: Goals, learning styles and interests, resources (TLLTs and non-TLLTs), detailed study ideas, ways to use the new language, ways to review the language, ways to enjoy the process and ideas for evaluating the language learned and the process (a fuller description of the learning plan with examples is provided in the appendix).*

**Class activities**
- Learner directed activities
- Individual students set goals for each class related to their learning plans
- Individual students decided on the focus and pace of the activities
- Students decided where to work and who to work with (including whether to work alone)
- Students discussed stages of their work with classmates and the teacher
- Students experimented with various materials including TLLTs depending on their goals

**Follow-up**
- Future independent work according to the student’s learning plan
- Blog entries (at least one per week)
- Comment on at least one other student’s blog (at least once per week)
- Final report

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**Making and implementing a learning plan**

In a previous version of the course, learners made and implemented the learning plan much earlier, but I found that the students were not necessarily ready to do so. I had administered a simple open-ended questionnaire to all students taking the previous version of the course in order to establish the learners’ experience with using TLLTs, and their awareness of their language learning goals. I administered the same questionnaire at the start of the
course being described in this paper. It is fair to say that learners in both groups were not generally clear on what their language learning goals were at the beginning of the course. Also, one of the main reasons that the students in both groups decided to take this course was that they wanted to learn more about TLLTs. This probably explains why learners were largely unaware of many TLLTs and when introduced to the tools, the students did not easily make the natural connection with how the tools might be effective for their language leaning goals.

Learner control

Although the first part of the course was mainly teacher directed, it did include activity choices and also opportunities for creative work both individually and in groups. The learners were given less teacher direction as the weeks progressed in preparation for the second part of the course where the learners were completely in charge of the planning and implementation of weekly activities. My role at this time was to help and advise learners as they implemented their plans, located relevant resources and tried different activities.

Physical environment

Environment 1: “Face-to-face” (the physical space)

The first environment was the physical space which consisted of the classroom and the adjacent Self-Access Learning Centre (SALC). The classroom was equipped with laptop computers with wireless Internet and was the meeting place for the class each time it was scheduled. Class and group activities always began in the classroom, but depending on the task and the resources needed, students could also choose to work in the SALC during class time or downstairs in the Media Centre where more computers were available. The SALC and Media Centre was also available outside class time. Class activities always included opportunities to discuss and share ideas with others face-to-face.

Online environments

The two online environments had distinct characteristics and roles. Moodle is a Virtual Learning Environment (VLE) which is mainly intended to support formal teaching and learning. Ning is an example of a Personal Learning Environment (PLE) which is a system whereby learners are given control over the tools within the learning environment.

Environment 2: Moodle (the course management system)

As this was a CALL course, it was appropriate that an online course management system was used to facilitate the organization of the course. Moodle is a robust and secure VLE often used as an online course management system at using Moodle enabled me to manage the course by displaying easy-to-navigate weekly divisions for the learners. Each weekly division included links, handouts and details of assignments and homework. I added notes and links each week based on emergent unplanned elements of the class including resources that students discovered and recommended that week. Moodle helped me to create a predictable structure and routine element to the class in order for students to gain confidence with
using TLLTs. Moodle was also a convenient way to calculate grades enabling the learners to monitor their progress in relation to the class average grade.

Despite being robust and reliable, the way Moodle is managed at my institution means that it had some limitations. The interface is much more static than other TLLTs, and it has very few easily customizable options. Although Moodle may have more flexibility elsewhere, at my institution many of the features can only be activated by the teacher which makes it ideal for a course management system, but less useful for fostering student creativity and autonomy. There are some functions that do allow students to interact online, for example, students can respond to forum posts initiated by the teacher and also initiate new topics for discussion online. In addition, it has a chat room function if the teacher enables it. Recent Modules that can be imported into Moodle do support a SNS-like environment, but I was not aware of these when I designed my course.

Environment 3: Ning (the social networking site)

The rationale for using a social networking site originally was to provide learners with a way to keep online reflective journals in the form of blogs that were all connected to each other from a homepage. There is a blog function of Moodle, but the Ning blog is an example of a PLE and allowed more customization by the learners and enabled them to apply themes, and to embed pictures and other media easily. This kind of blog customization has been shown to increase a sense of ownership over a blog and increase motivation for blogging as a class activity (see, for example, Mynard, 2007; 2009). Severance, Hardin and Whyte (2008) suggest that VLEs such as Moodle are too difficult to customize and evolve too slowly to meet teaching and learning needs, so drawing on a combination of tools is a practical solution for educators. Ning was not originally intended to be more than just another TLLT for learners, however, as the weeks passed, it became increasingly evident that Ning was an integral part of the course and a distinct environment. The original intension of Ning was not connected with increasing interactivity as I assumed the Moodle communication functions would be adequate. Nevertheless, the social networking element of Ning meant that students interacted in English with each other regularly and posted images, music and comments even though this was not a requirement of the course. Most assignments had two online requirements: (1) learners were required to post a blog entry, for example, reflecting on the potential usefulness of a particular TLLT that had been examined in class, then (2) read and comment on at least one other classmate’s blog entry.

Social networking and reflection

As previously mentioned, one of the main goals of the course was for students to be able to critically evaluate their language learning and to select appropriate strategies and tools. Reflection is essential for this kind of critical evaluation. As noticed elsewhere (Lee, 2011; Mynard, 2007; 2009), the blogs provided a forum for reflection. However, the interactive nature of the social networking site and integrated blogs appeared to enable the learners to reflect more deeply in a public format than I previously noticed with similar learner groups. Although this is a forum article and does not present a full research study, evidence from students’ online and face-to-face activities indicate that further research will confirm these preliminary observations. The class was not initially intended as a research project, so I did not collect ongoing data that may have provided further evidence of reflection. After
the course had finished, I obtained permission from the students to study their blogs and the cursory retrospective analysis of the kinds of interactions within the Ning forum suggested that the use of a social networking tool such as Ning, as noted by Arnold and Paulus (2010) may have a large role to play in facilitating reflection through interaction with my learner group. There was evidence of learners constructing and reconstructing their views; evidence of learners articulating their thought processes as they explored certain tools, and evidence of learners learning from others and adapting their ideas for their own language learning purposes. There were also likely to be actions that were invisible to me that has been termed elsewhere as “pedagogical lurking” (Dennen, 2008) where learners read contributions by other learners and may still engage in reflective processes as a result. Arnold & Paulus (2010) consider lurking to as a fundamental aspect of online learning.

Examples of evidence of reflection (drawing on Moon’s outcomes for reflection (Moon, 1999)):

1. Evidence of critical evaluation
   ▶️ Students critically evaluated resources
   ▶️ Students recommended resources and strategies to others
   ▶️ Students learned about strategies and resources from others and adapted the ideas for their own language learning purposes

2. Evidence of metacognition
   ▶️ Students looked back at what they had learned during the course
   ▶️ Students constructed and reconstructed their views on using certain tools for language learning

3. Evidence of decision-making
   ▶️ Students articulated reasons for choosing particular materials and methods for independent learning
   ▶️ Students articulated the goal-setting process

4. Evidence of problem-solving
   ▶️ Learners articulated how they found materials and strategies to address their identified goals
   ▶️ Learner co-constructed knowledge by learning from each other

Extract from one learner’s blog

I will provide evidence here from only one learner’s Ning blog for the sake of coherence, but similar examples were found in the blogs of all course participants

Example 1

This is an example of the learner articulating her processes as she explored a TLLT. In this blog extract, she explains why some resources she chose were not suitable for her personally.

This time, I focused on my weak area. Since my job hunting has started, I started read news papers in Japanese every day... sorry, I lied, not everyday but as often as I can. However, I didn’t have thoughts reading news articles in English, because I always hated to read such subjects. It seemed too difficult for me. Actually it IS difficult, of course. So, to improve reading skill, I used a couple of news websites.

I started from CNN and BBC which provides wide range of news for native speakers. I am
sure that some language learners use them for studying, but I think they are basically designed for people who speak English as mother tongue.”

**Example 2**

This is an example from the same blog entry where the student constructed and reconstructed her views on using news websites for language learning. The student explains why she eventually decided to read a Japanese news website in English. She also shows evidence of problem-solving in targeting editorials in order to be able to read more background information. There is also evidence of metacognitive awareness as she reflects on the more effective approach for her language learning goals.

For me, it was hard to understand articles on the websites. There are many vocabularies so it became good time to learn them. I realized that keeping up with recent news is super hard work!!! Therefore, I changed websites into The Japan Times. And I made another change.

Instead of reading random news, I decided to read “editorials”. Editorials are much easier to catch important points because it usually explains facts and background information. And picking up news related Japan is a lot comfortable for me because I have a little knowledge. I think I should have started this way before trying to understand other countries news.

**Example 3**

In this extract, the student adapted ideas from other students for her own language learning purposes. This strategy was described by another student previously on her Ning blog. This student used the first student’s ideas, gave the strategy a name “search bar strategy” and adapted it by adding further activities after step 6. The first student had stopped at step 5. The learner also recommends the strategy to other learners.

Next strategy was using “search bar” strategy! It was easy way, but I think I got massive improvement!

1. you pick up a word.<e.g.: referendum>
2. Then, you put it on the news web site’s search bar.
3. Articles which have the word pop up.
4. Then, you choose whichever you like.
5. Appear “search bar on this page”.
   <if you using safari with windows, CTRL+F, it will appear upper right>
6. Find the word in articles.

Word has sometimes several meanings, so I make sure whether the word used in the sentence is the same as the word I chose. and I put the sentence on my vocab book. (If it is a long sentence, I made it short.)

It is useful because I can see the word in different sentence several times. It is very effective!”
Example 4

Finally, in this extract, the student is looking back and reflecting on what she had learned. There is evidence of metacognition as the learner realizes the importance of enjoyment in order to sustain her interest in reading online news articles.

Looking back all the things I have done, it was a long way to reach here... Now, I found some good ways of using materials and studying.

I need to keep up this activity to improve reading skill....Since my resources didn’t fit me at first, I have lost enjoyment. If I lost my enjoyment, I don’t study often or review them. I found out!

However, since I have found the way which fits me, it will get better now.”

Responses from classmates

Due to the nature of a social networking tool such as Ning, each time a blog entry is posted, it appears on other students’ “newsfeed” which usually resulted in three or more responses. The respondents tended to comment on how they were interested to hear about the TLLT or strategy and how they might use it, encouragement or opinions on similar TLLTs that they had tried.

Social network enhanced blended learning environment

Although I am only drawing on preliminary observations in this paper, I feel I witnessed enough evidence in students’ blogs and online interactions to proceed with a more thorough research project which could investigate reflection within a social network enhanced blended learning environment. The face-to-face environment enabled learners to work together and explore various TLLTs, the course management system provided the robust structure, and the social networking site allowed for interaction which facilitated reflection. The overlapping of the three environments, as I envisage them are depicted in Figure 2.

I define a social network enhanced blended learning environment to be a learning environment which is appropriately supported and facilitates reflection and knowledge construction through a blend of face-to-face and online interaction.

Conclusions

Clearly further research is needed to substantiate claims made in this paper and there are many limitations. For example, only one class was observed and I had the dual role of teacher and observer so there is great potential for bias. Further work on text analysis would require at least one other researcher to assist with analysis. It is also difficult to ascertain the extent to which the varying degrees of teacher-guidance or other support may have influenced the ways in which the learners participated online. The extent to which the students knew each other and the kinds of personalities within the class would also greatly influence the outcomes. For further a research, perhaps using a combination of text analysis, observations and students’ introspections could shed more light on the assumptions. There would also need to be clearly defined research questions and a robust research
Mynard: Learning environments that facilitate reflection

Nevertheless, as people are becoming more and more accustomed to interacting online in a social network environment, it seems appropriate that educators also capitalize on the powerful tools for interaction that facilitates reflection on language learning. Research into the issue of reflection in online environments promises to be a fruitful area for future research.

Notes

1. Castellano, Mynard & Rubesch (2011) define TLLTs as “any piece of hardware or software that can be leveraged for language acquisition regardless of whether or not it was originally designed for that purpose” (p.12).

References


**Author biodata**

**Jo Mynard** is the Director of the Self-Access Learning Centre and Assistant Director of the English Language Institute at Kanda University of International Studies, Japan. She has an MPhil in applied linguistics from Trinity College, University of Dublin and a doctorate in education from the University of Exeter, UK.
# Appendix

<table>
<thead>
<tr>
<th>Element of the learning plan</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Big goal</td>
<td>The major skill area that the learner wished to focus on (i.e. reading, writing, listening or speaking) and the reason.</td>
<td>“I would like to improve my reading and understand newspapers well”</td>
</tr>
<tr>
<td>Small goal</td>
<td>A specific skill (i.e. grammar, vocabulary or pronunciation) that would help the learner to develop in the major skill area and achieve his/her big goal</td>
<td>“I need to improve my vocabulary so that I can read understand the texts more easily and read quicker”</td>
</tr>
<tr>
<td>Interests and learning styles</td>
<td>Learners should consider their own interests and preferred learning styles when designing a course of study.</td>
<td>“I like being aware of current events. I am a kinesthetic learner – I enjoy talking to different people. I get bored reading by myself. ”</td>
</tr>
<tr>
<td>Resources</td>
<td>A list of possible resources and reasons</td>
<td>“CNN and BBC online newspapers”</td>
</tr>
<tr>
<td>“Study” activities</td>
<td>A description of how the learner would study to learn something new</td>
<td>“I will read the headlines and find an interesting article. I will then read quickly to get the gist. Then I will read the article again and note down new words”</td>
</tr>
<tr>
<td>“Use” activities</td>
<td>A description of how a learner will use the new language in order to understand, personalise and assimilate it</td>
<td>“I will talk to my friends after I finish noting down the new words and try to use the words to talk about the article”</td>
</tr>
<tr>
<td>“Review” activities</td>
<td>A description of how a learner can check that he/she can remember the new language</td>
<td>“I will make online flashcards to review the words”</td>
</tr>
<tr>
<td>“Enjoy” activities</td>
<td>Ways to ensure that a learner maintains motivation</td>
<td>“I will enjoy talking to my friends about the article and finding out their opinions on serious topics”</td>
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