

# Creating a student-generated glossary in Moodle: How is it done and how effective is it?

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*Vocabulary acquisition was proving extremely difficult and demotivating for students in a 2<sup>nd</sup> year Intensive Reading course at a private Japanese languages university, so technology, in the form of Moodle, was introduced to the course. The aim was to build a student-generated glossary that would provide students with information on necessary vocabulary items as well as various opportunities to see the items in different contexts. Instructing students on how to use the glossary, and then finding ways of getting them to use the glossary consistently were the biggest challenges.*

Vocabulary acquisition is an area of research that has been given considerable attention. Educators and researchers are forever trying to determine more and more effective ways to provide students with the ability to enhance their vocabularies and learn ways not only to remember new vocabulary items but also to use them in authentic situations. The development of technology has had a positive impact on the study of vocabulary acquisition and several researchers have introduced some innovative ideas to the field (e.g., Al-Seghayer, 2001; Chun & Plass, 1996). Technology is being embraced in many ways and this has been reflected by the breadth of research related to technology and vocabulary acquisition. Research has been done on areas ranging from electronic dictionaries usage (Pérez Torres & del Mar Sánchez Ramos, 2003) to the efficacy of applications such as *Hot Potatoes* (Mach, 2006). Course Management Systems (CMS) such as *WebCT* and *BlackBoard* have also become extremely popular and widely used, as have other open source learning design systems such as *LAMS*.

*Moodle* is another course management system (CMS) that is an open source (free) software package designed using sound pedagogical principles to help educators create effective online learning communities. This paper will look at how *Moodle* was utilized in a 2<sup>nd</sup> year “Intensive Reading” course at a private Japanese university in an endeavor to assist vocabulary acquisition by creating an entirely student-generated glossary. In particular it will focus on why *Moodle* was chosen and what advantages there were in

using Moodle's glossary module; how students were taught to use the glossary; initial problems in the mode of delivery; and finally how effective it has been in getting students to use the glossary and view new vocabulary items.

## Rationale/Purpose

The volume of vocabulary that students have to learn in this 2<sup>nd</sup> year course is a lot more demanding than that which they encountered in their first year. In any given unit there might be up to 30 new vocabulary items that students, for the most part, are unfamiliar with. Further, at the start of each class they take a quiz with a **large vocabulary testing component** based on the readings. In the first year of teaching the course it was evident that learning vocabulary was causing the biggest problems and leaving many students completely exasperated and struggling with grades – as they faltered each week during the quizzes. Another problem was that even if students studied the vocabulary relevant to each week, they had no further opportunity to see or use that set of learned vocabulary in an environment that was contextual and topical. According to Nagy, Herman, and Anderson (1985) most vocabulary is learned gradually through repeated exposure to new and known words. However, even if students learned the vocabulary items, their lack of ongoing exposure to it invariably caused them to forget them soon after. Therefore, something was needed to give students ongoing access to the vocabulary items in the book and allow them to play an active role in their learning.

In a study conducted by Dale and O'Rourke (1986), they described four levels of word knowledge, which they characterized with four statements: *I never saw the word before; I've heard of it, but I don't know what it means; I recognize it in context, and I can tell you what it is related to; I know the word well.* In the first year of teaching the course, students were constantly stuck in the first two sections of Dale and O'Rourke's statements. However, by addressing the problem and searching for something to integrate into the course that helped students with their vocabulary acquisition, it was hoped that students could move up into the third and fourth sections of Dale and O'Rourke's statements.

The introduction of Moodle's "Glossary" function was seen as an ideal way of solving this problem. It was seen as the ideal tool to engage students in the acquisition of relevant vocabulary and give them ongoing exposure to it. An entirely student-generated glossary was seen as most appropriate as it empowered students and gave them an active role in their learning. Moreover, if the glossary was teacher-generated, it is arguable as to whether it would have been any different from students simply looking up words in their own dictionaries. The major issue was in working out the most effective way of incorporating and utilizing the glossary in order to ensure that students knew how to use it, that they did make use of it and that it was a genuinely useful addition to the course.

## Why use Moodle and what are its advantages?

### **a. It is online, therefore students can have permanent access to it**

Moodle is a Course Management System (CMS) used by educational institutions or individual teachers that students can access via the Internet (more extensive information can

be found at <http://moodle.org>). Once institutions or teachers have set up their *Moodle* site, teachers simply create activities and students then log on via a username and password and complete them. There are a range of activities for students to engage in including discussion forums, journals, quizzes, chats, blogs, wikis, glossaries and many more. One of the great advantages in using *Moodle* is that the activities set by teachers are accessible online, meaning students can do them whenever and wherever they want, as long as they have a computer with Internet access. The ability to access relevant materials and continue working beyond the classroom is of extreme benefit for this intensive reading course because of the time restrictions faced by teachers and students alike.

As with many classes in Japanese universities, students only meet once a week for 1.5 hours in this 2<sup>nd</sup> year course. During that time, they take a general comprehension quiz that also includes a large vocabulary component in the first twenty minutes, then spend the next forty minutes or so in small groups discussing the cross-cultural issues covered in the textbook. The final thirty minutes are usually spent on reading skills. Therefore there is an anomaly in that whilst vocabulary acquisition is highly desired, and necessary to learn in order to understand the readings and perform well in the weekly quizzes, the structure and time limitations of the course essentially preclude concentrated vocabulary learning from happening during class time. With only 1.5 hours of class time per week, using a portion of it for explicit vocabulary instruction was not seen as ideal. As Krashen (1989, p. 450) so aptly described, vocabulary learning at times is at best boring and at worst painful, so developing methods to help ease the burden on learners are highly desirable. Thus the introduction of *Moodle's* glossary function was seen as an ideal way to overcome such limitations and dilemmas. Any number of vocabulary items could be introduced in a week and students could have constant access to them online.

### ***b. 2nd year students have already had exposure to Moodle***

In addition to the online convenience *Moodle* provides, it is also easy to integrate into courses as almost every 2<sup>nd</sup> year student is familiar with *Moodle* in some capacity. Upon entering the university, first year students go into any one of three departments, including the English Department, the International Communication Department (IC) and the International Languages and Culture Department (ILC). However, the focus here will only be on students who enter the English Department.

As indicated by Figure 1 there are a number of ways in which students may be introduced to *Moodle* during their first year. English Department students take freshmen English classes together, basic writing classes together and basic reading classes together. Though they take these classes together, they have different teachers for each. As shown in Figure 1, seven teachers have a freshmen English class page on *Moodle*, 14 teachers have a basic writing page and nine have a basic reading page. Therefore, if students are not introduced to *Moodle* through one course or teacher, there is a good chance they will be introduced through another. Sometimes they may use *Moodle* with all three of their teachers. Moreover, first year students from any department can also be introduced to *Moodle* through "The First Steps" module, a semester long, extracurricular, autonomous course that provides students with extra credit, or the "Peer Online Writing Centre", a course that provides systematic, moderated peer feedback to students on any facet of writing they submit for review.

Course categories	
<b>English Dept. First Year</b>	<b>4</b>
Freshmen English	7
Basic Writing	14
Basic Reading	9
<b>English Dept. Second Year</b>	<b>1</b>
Extensive Reading	9
Intensive Reading	10
Advanced Writing/Communicative Grammar	10
Media English/Oral Communication	7
<b>English Dept. Electives</b>	<b>16</b>
The First Steps Module	1
Languages and Culture (ILC)	11
International Communication (IC)	42
Research Institute (RILS&LE)	35
SALC Online	15
The Peer Online Writing Centre (POWC)	7
CSK English	4
Graduate School Writing	1

Figure 1. Different ways 1<sup>st</sup> year students can get exposure to Moodle

Investigation has indicated that with so many different avenues for first year students in the English Department to gain exposure to *Moodle*, over 75% entering their 2<sup>nd</sup> year have *Moodle* accounts and are familiar with the use of *Moodle* in their classes, so integrating *Moodle* into 2<sup>nd</sup> year classes and having students use it on a regular basis is a very simple, painless process.

*c. The modules in Moodle work well in unison with each other*

One of the great things about *Moodle* is how well it enables the various modules, or activities, to work in conjunction together and to complement each other. The glossary module, and the way it works in unison with every other facet of *Moodle* is a perfect example. For instance, every time a vocabulary item is entered into the *Moodle* glossary, *Moodle* remembers it. Then whenever that word is used again, at any time in the future, by any registered course user and with any activity, it appears with a grey shaded box over it. Figure 2 gives a perfect example of this, whereby the vocabulary items 'stereotype', 'image' and 'race' have already been entered into the glossary at a time prior to the forum post.

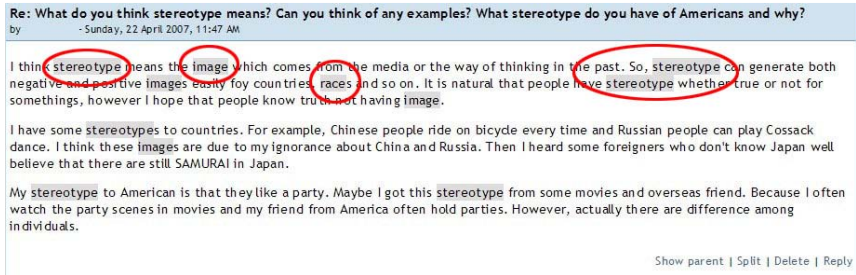


Figure 2. Entered glossary items shaded grey

In turn, if a user then scrolls over the shaded vocabulary item, he/she will see a link under the word and be able to click it. Once they click the word, a new, smaller, pop-up window will appear on the screen showing the vocabulary item and its information. This can be seen in Figure 3. The user clicked on 'stereotype' and a pop-up window providing information for 'stereotype' appeared automatically.

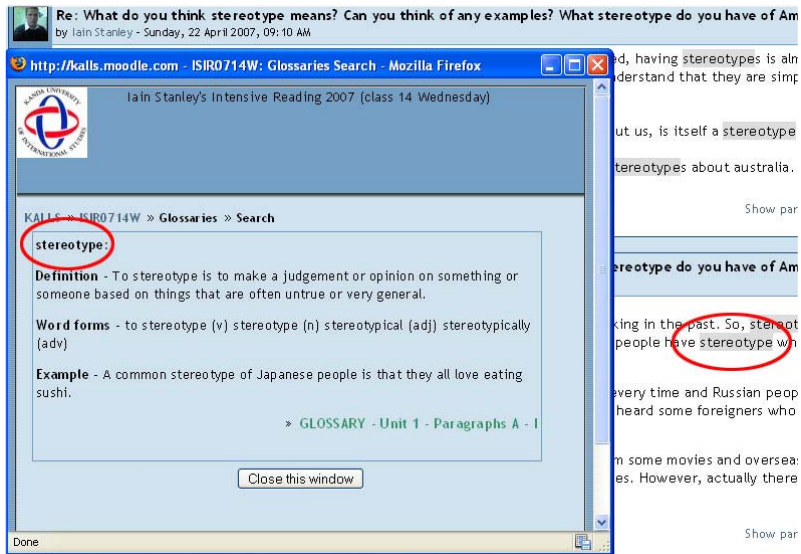


Figure 3. A pop-up window providing a vocabulary item's information

The way that the glossary works in unison with the other activities in Moodle adheres perfectly to the constructivist approach that Moodle's creator, Martin Dougiamas, initially envisioned. As more and more vocabulary items are entered into glossaries, more and

more words will be shaded in grey, and as those words are used at any time in the future, students will have more and more opportunities to click on the words and see an explanation of them instantly. This idea is also consistent with Nation's (2001) idea that 75% of vocabulary acquisition should come from incidental learning through various methods.

#### ***d. Moodle provides a central, focal point for students***

By using *Moodle* to create a student-generated glossary, it encourages every student enrolled in the course to go to the same location for information every week. If students know that relevant and necessary course information is on *Moodle*, they are likely to access the site every week and get exposure to all of the information available, including every item entered into the glossaries. Information about any given vocabulary item is permanently accessible and ensures that an equitable method of helping students acquire vocabulary is provided. If students go above and beyond their *Moodle* course to access information, well and good, but at least every student can gain the necessary vocabulary information from *Moodle* to help them learn each item, prepare them for the weekly quizzes and assist them in understanding the readings.

### **Teaching the students to use the glossary Module**

Even though most 2<sup>nd</sup> year students are familiar with *Moodle* and integrating it into a course is not usually a problem, our research has shown that not a lot of students have had experience in using the glossary module or, more specifically, entering vocabulary items themselves. Of the few who had used the glossary, they had just read vocabulary items that had been entered by the teacher. Even though the teacher is the only one who can create the shell of the glossary on their *Moodle* course pages, or the link that takes users to the glossary, any course-registered user can add entries to a glossary. Similarly, just like teachers might create a forum and nominate a topic, it is up to others to post to the forum and generate discussions. Therefore, as the whole purpose of the glossary in this intensive reading course was to make it an entirely student-generated one, the participants needed to be taught how to use the glossary and add vocabulary items to it.

One major problem with this was that the intensive reading courses are not taught in rooms with Internet access. The university has a self-access learning centre that includes six Blended Learning Spaces (BLS). Each BLS is equipped with 30 Internet capable laptop computers as well as other multimedia facilities. However, classrooms outside this building are not computer or Internet equipped, so students can't be taken through the process of learning to use features of *Moodle* in class. Some different options to overcome this dilemma included making a how-to manual in *MS Word* and distributing it to each student, trying to organize a classroom swap with a teacher in a BLS on a designated day, or making an instructional video that could be posted online.

For two main reasons, it was deemed that the best way to overcome this dilemma was to make an instructional video. One reason for this was that an instructional manual made in *MS Word* could not guarantee students would understand everything. A guide was made and distributed to a couple of non-*Moodle* using teachers for trial and there were enough questions and moments of confusion to assume that students might also encounter similar problems. A second reason was that there could be no way of ensuring students didn't lose

or misplace their guides. The guides could have been posted on *Moodle* but with the number of screenshots, the guides were quite long. As most students have to pay for printing at the university, this presented a monetary issue. Therefore a video that could be posted permanently on *Moodle* was seen as the ideal solution.

### Using *Camtasia* to make an instructional video

The video was made using Techsmith's *Camtasia Studio* software (more information at <http://www.techsmith.com/camtasia.asp> - see Gromik, this issue, for more information about using *Camtasia* in teaching environments). It is a software application that enables users to record the screen while they're working and simultaneously comment on, or describe what they're doing. Users can record web pages, applications, *PowerPoint*, or anything else on the screen, as well as audio from the PC or a microphone. All that is needed is the *Camtasia Studio* software package and a multimedia headset with microphone.

Once you've recorded the screen and any audio or narration, you can then edit your clip, add text or instructional balloons, and then export it in a variety of formats, including *.wmv* (*Windows Media*) *.mov* (*Quicktime*) or *.swf* (*Flash*), which makes it suitable for watching finished videos on both Windows and Macs. One thing to note however is that the *Camtasia Studio* software can only be used on Windows operating systems. For Mac users, an alternative is *SnapzProX*, which can be found at <http://www.ambrosiasw.com/utilities/snapzprox/>.

To demonstrate to students how to enter a vocabulary item into the glossary, the entire process in *Moodle* was recorded and made into a video. The video was then uploaded to *Moodle*, (and later *YouTube*) whereby students had constant access to it. Each step was carefully explained in clear, simple English and steps were repeated to ensure that nothing was left unclear. Some of the steps included where to enter new vocabulary items, what kind of information to include, such as definition, word forms and an example sentence, how to edit or delete entries, how to save entries and how to read others' entries. Figure 4 provides an example of what was expected of students when they made glossary entries. 'Assimilate' is the vocabulary item.

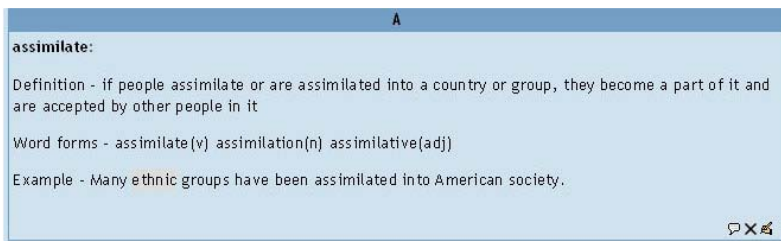


Figure 4. An example of a vocabulary item entered into the glossary

Following its introduction, a survey was sent to students taking the course asking them if the video helped them understand how to use the glossary ( $n = 52$ ). Figure 5 shows

the results. 30.8% chose 'Strongly Agree', 61.5% chose 'Agree', and 7.7% chose 'Not Sure'. Therefore over 92% of students said the video helped them. Further evidence of its efficacy was the fact that as the course progressed, no students made further inquiries regarding how to use the glossary.

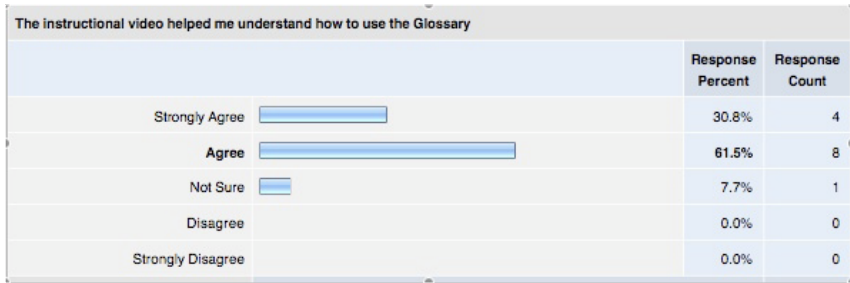


Figure 5. Survey results on how helpful students found the instructional video

### Initial problems in getting the students to contribute to and use the glossary

Once the glossary was built, students had been shown how to use it and it was ready for use in the course, the last thing to think about was how to get students to actually use it. Fortunately the nature of 2<sup>nd</sup> year courses in the English Department gives a lot of flexibility to teachers in regards to how they teach the course, how they plan the syllabus, what they do in class and how they determine grades. Even though a number of teachers teach “Intensive Reading”, for the most part it is up to individual teachers as to how they plan lessons and allocate grades or percentage points. In taking advantage of such freedom, 20% of the grade in the course was set aside for ‘Moodle Participation’. Even though the notion of using extrinsic motivation has been criticized in the past, research (Ryan, Connell, & Deci, 1985) has indicated that there are different types of extrinsic motivation, and that, given the right circumstances, those who are initially motivated for extrinsic reasons can gradually become motivated by intrinsic reasons.

However, in the first stages of integrating the glossary into the course there were some teething problems. At the beginning of the course students were notified that ‘Moodle Participation’ would comprise 20% of their grade. They were informed that Moodle Participation meant contributing to forum discussions on given topics introduced in the textbook, contributing to the glossary, completing *Hot Potatoes* vocabulary activities and completing presentation reflection journals. Students understood this concept and understood what was expected of them.

In relation to the glossary though, the first problem was that students weren't clear on which words they should define. Unlike the forum activity, in which a specific topic was given and students were asked to give their opinions, the glossary was left open to students. Perhaps it was a little idealistic, but in wanting to create an entirely student-generated glossary, initially everything was left open for students to decide upon. Students knew that the words came from their textbooks, and knew which words were vocabulary items

because they were marked in the textbook, but in any given paragraph there could be up to three or four vocabulary items marked. Given that, on average, students read about ten paragraphs per week, at times there may have been a choice of up to 30 vocabulary items to define.

While some may think that having more choices would be an advantage to students, the opposite seemed to be true in the current study. Figure 6 gives a clear indication of the problem, which is a screenshot of one week's vocabulary contributions for one class ( $n = 27$ ). It was randomly chosen and is similar to the glossaries from most other weeks (Note that this is page 1 of 2. Page 2 had only 'No' in the 'Post' column). The 'No' indicates that students (whose names have been blocked out on the left) did not make an entry to the glossary that particular week. Therefore for that particular glossary, only six vocabulary items were entered, but more importantly, only two students made those six entries. This introduces the second problem.



First name / Surname ↓	Post	Select
	No	<input type="checkbox"/>
	No	<input type="checkbox"/>
	No	<input type="checkbox"/>
	No	<input type="checkbox"/>
	Yes (4)	<input type="checkbox"/>
	No	<input type="checkbox"/>
	No	<input type="checkbox"/>
	No	<input type="checkbox"/>
	No	<input type="checkbox"/>
	Yes (2)	<input type="checkbox"/>
	No	<input type="checkbox"/>
	No	<input type="checkbox"/>
	No	<input type="checkbox"/>
	No	<input type="checkbox"/>
	No	<input type="checkbox"/>
	No	<input type="checkbox"/>
	No	<input type="checkbox"/>
	No	<input type="checkbox"/>
	No	<input type="checkbox"/>

Figure 6. Initial use of the glossary was very low

Even though students knew that 'Moodle Participation' accounted for 20% of their grade, they didn't know how 'Moodle Participation' was calculated. This was an oversight made when planning the syllabus and was the cause of considerable confusion. The biggest problem was that students believed, for example, that if they didn't contribute to the glossary for three weeks, but then made four contributions in the fourth week, it would be the same as if they had made one contribution for four consecutive weeks. This happened in both the glossary and the forum discussions, but it was far more noticeable and common in the glossary. It meant that for the majority of the semester—despite constant requests and reminders not to do so—students did not contribute to the glossary, then in the final week or two made as many contributions as they could. **In effect, there would be many glossaries during the semester that were for the most part empty, then a couple at the end that were full to the brim.** Some students even went back to older glossaries from earlier in the semester and belatedly entered vocabulary items hoping to boost their participation scores.

This was not ideal for one major reason. The whole constructivist nature of *Moodle* is designed to ensure activities work together and that students scaffold their learning through various activities and modules. Further, many L2 studies have shown that vocabulary growth occurs through incidental learning (e.g., Day, Omura, & Hiramatsu, 1991; Hafiz & Tudor, 1990). However, if contributions weren't made to the glossary consistently, then when other activities were contributed to, such as forums or journals, very few words would be shaded grey (indicating an entered glossary item), which meant students couldn't click on any shaded words to get instant explanations or reap the benefits from any kind of incidental learning. The whole point of building the student-generated glossary was to give students as much exposure as possible to new vocabulary items in various contexts, but if there were no items, then the purpose of the task was defeated.

In order to solve this dilemma, an anonymous survey was sent out to students at the end of the first semester after using the glossary ( $n = 52$ ), asking them about the glossary and how it could be improved. They were given four options to choose from as well as an option to write their own idea. The results are given in Figure 7. The most popular answer, accounting for 46.2% of responses, was to give one word to one student each week. During discussions with students following the survey, the general consensus was that if students knew which word they had to define and how to do it, then it would be less of a burden on them. They didn't really like having to decide on a word themselves and having to work out if it was a particularly useful word or not, as some of the marked vocabulary items in the textbook were often low-frequency words (Coxhead, 2000) and not overly useful for them.

### Enhancing student participation in building the glossary

Therefore, following the ideas recommended in the survey, the necessary changes were made. At the start of each week twelve to fifteen of the most important vocabulary items—**based on frequency, use and presence in the quizzes—were chosen by the instructor.** A table was then created on the "Intensive Reading" class homepage on *Moodle* and, going alphabetically, one student was assigned one word. Students were instructed to log in, go to the relevant week in *Moodle*, check the assigned vocabulary items and, if they saw their names, go to the Glossary and enter the item with the specified information. Figure 8 illustrates how the system worked.

How do you think the Glossary could be improved for students?		
	Response Percent	Response Count
By using pictures in the definitions	7.7%	1
Giving 1 word to 1 student each week	46.2%	6
By providing example sentences in the definitions	30.8%	4
By making students explain 1 word to their group at the start of each class	15.4%	2
Other (please specify)	0.0%	0

Figure 7. Survey results for improving the glossary

Glossary for this week.

Tomomi - emotional	Tsubasa - adjust	Megumi - motivation
Tsuyoshi - flexible	Tomoko - tolerant	Naoki - ethnocentric
Chiharu - adapt	Seiko - obstacles	Kei - elation
Daisuke - depression	Yoshiki - fascinating	Iain - culture-shock
Yuka Y - familiar	Kaori - tension	Kanae - stress

 FORUM: Use this Forum to discuss issues from Unit 2 - Paragraphs A - G

 GLOSSARY - Unit 2 - Paragraphs A - G

 Unit 2 Quiz A - G

Figure 8. Students were given one word each to define.

Its implementation was a huge success and as Figure 8 indicates, participation was considerably better. Each week every vocabulary item was accounted for. Knowing that they only had one word to deal with and that this word would be given to them had a significant impact on students. Furthermore, as only 12 to 15 items were designated each week, students who entered an item one week was most likely not responsible for an item the following week, as there were only 25 to 27 students per class.

### How effective has it been in exposing the students to the vocabulary?

The final goal in the process, after implementing a system in which students consistently contributed to the glossaries, was to hope that students actually used the glossaries and checked on words that had been contributed. There were a number of options presented to encourage students. They could utilize the glossaries themselves, the weekly forums that were provided, as well as weekly quizzes, all of which contained words which had been entered into the glossaries. It was hoped that the more options that were presented to students, the better chance they had of seeing different vocabulary items regularly and retaining them. This idea was consistent with ideas from McKeown, Beck, Omanson, and Pople (1985), who found that new words were not really understood when they were en-

countered only four times, but were considered understood when they were encountered twelve times. Thus the last thing to check was whether students were actually viewing glossary items at different times via different activities.

The best way of checking that is by using the 'Report' function in Moodle, which is found in the 'Administration' box on the left-hand side of course pages. By using the 'Report' function, a course administrator or teacher can check everything that registered course users are doing. For example, they can check the logs of all students and check on what students are looking at, how often they are looking at something, how long they are looking at things or doing activities and what activities they are using more widely than others.

To monitor how often the glossaries were being used and viewed in the course, two methods were used. The first utilized a more global perspective and focused only on how often students utilized a particular glossary. The teacher can choose any glossary that has been created and then monitor the actions of students for that glossary. This is shown as 'All Actions' in the log page in Moodle, which refers to a host of options broken down into two sections; 'Glossary Views' and 'Glossary Posts'. Within 'Glossary Views' there were three subsections; *view*, *view all*, *view entry*. Within 'Glossary Posts' there were ten subsections; *add category*, *add comment*, *add entry*, *approve entry*, *delete category*, *delete comment*, *delete entry*, *edit category*, *update comment*, *update entry*. This is illustrated in Figure 9

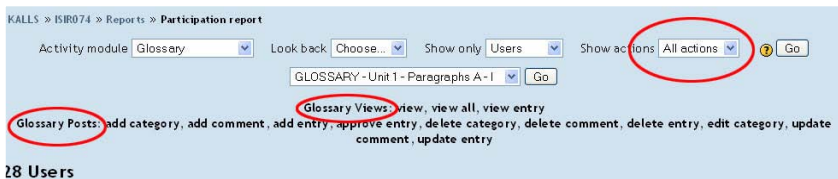


Figure 9. Using Moodle's Report function to monitor student actions

If a student utilizes a glossary in any capacity either under 'Glossary Views' or 'Glossary Posts', a 'Yes' appears next to their name in the 'All Actions' column. A number in brackets will appear next to the yes, indicating exactly how many actions a student has performed. Figure 10 illustrates this point.

This was a glossary for half a unit in the text book – about eight or nine paragraphs and about ten vocabulary items. Under the 'All Actions' column, you can see how often each student is using this particular glossary. Most students utilized the glossary in some capacity between 15 and 20 times, with some above 20 and two above 30. These numbers are consistent with most current glossaries in the course.

The second method of monitoring students' use of the glossaries was more specific. It also looked at the logs of particular glossaries, but examined what students were looking at in far more detail. As Figure 11 demonstrates, there are five sections that provide information on user habits, including Time, IP Address, Name, Action, and Information.

Page: 1 2 (Next)

First name / Surname ↓	All actions	Select
	Yes (30)	<input type="checkbox"/>
	Yes (16)	<input type="checkbox"/>
	Yes (14)	<input type="checkbox"/>
	Yes (22)	<input type="checkbox"/>
	Yes (16)	<input type="checkbox"/>
	Yes (13)	<input type="checkbox"/>
	Yes (15)	<input type="checkbox"/>
	Yes (21)	<input type="checkbox"/>
	Yes (33)	<input type="checkbox"/>
	Yes (15)	<input type="checkbox"/>
	Yes (14)	<input type="checkbox"/>
	Yes (16)	<input type="checkbox"/>
	Yes (15)	<input type="checkbox"/>
	Yes (6)	<input type="checkbox"/>
	Yes (17)	<input type="checkbox"/>
	Yes (9)	<input type="checkbox"/>
	Yes (6)	<input type="checkbox"/>

**Figure 10. The 'All Actions' column shows student response was much more active**

Time is an important section to monitor because it shows when students are checking particular glossaries or items they contain. This is valuable because teachers can see the spread of time in which students are using a glossary. In the example provided in *Figure 11* the dates span from May 13<sup>th</sup> to June 6<sup>th</sup>, which indicates that three weeks after the glossary was created, students were still utilizing it in some form. In this case a student has checked a specific vocabulary item, 'race'. Most likely the student has seen 'race' in a forum post or journal post and clicked on the shaded word to get an instant explanation. That is very encouraging and proves that the changes have been successful.

There is another very important distinction to make in the 'Action' column. If the logs in the 'Action' column state 'glossary view' it means that students viewed the glossary as a

Displaying 419 records

Page: 1 2 3 4 5 (Next)

Time	IP Address	Full name	Action	Information
Wed 6 June 2007, 01:09 PM			glossary view entry	race
Wed 6 June 2007, 01:08 PM			glossary view entry	race
Tue 29 May 2007, 10:02 PM	219.16.58.69		glossary view	GLOSSARY - Unit 1 - Paragraphs A - I
Mon 28 May 2007, 08:26 PM	218.180.72.52		glossary view	GLOSSARY - Unit 1 - Paragraphs A - I
Wed 23 May 2007, 01:10 PM			glossary view	GLOSSARY - Unit 1 - Paragraphs A - I
Wed 23 May 2007, 01:04 PM			glossary view	GLOSSARY - Unit 1 - Paragraphs A - I
Wed 23 May 2007, 05:59 AM	43.244.202.243		glossary view entry	assimilate
Wed 23 May 2007, 12:37 AM	210.174.28.126		glossary view	GLOSSARY - Unit 1 - Paragraphs A - I
Tue 22 May 2007, 09:08 PM	218.180.72.52		glossary view entry	culture
Tue 22 May 2007, 08:08 PM	218.180.72.52		glossary view entry	assimilate
Tue 22 May 2007, 04:53 PM			glossary view entry	offensive
Sat 19 May 2007, 05:49 PM	222.146.74.163		glossary view	GLOSSARY - Unit 1 - Paragraphs A - I
Sat 19 May 2007, 05:49 PM	222.146.74.163		glossary view	GLOSSARY - Unit 1 - Paragraphs A - I
Sat 19 May 2007, 05:48 PM	222.146.74.163		glossary view	GLOSSARY - Unit 1 - Paragraphs A - I
Thu 17 May 2007, 08:52 PM	218.180.72.52		glossary view entry	native
Thu 17 May 2007, 03:22 PM			glossary view entry	assimilate
Thu 17 May 2007, 03:22 PM			glossary view entry	multicultural
Thu 17 May 2007, 03:20 PM			glossary view entry	culture
Thu 17 May 2007, 03:14 PM			glossary view entry	culture
Sun 13 May 2007, 04:05 PM	210.153.84.8		glossary view	GLOSSARY - Unit 1 - Paragraphs A - I

Figure 11. A more specific log of students' actions using Moodle's "Report" function

**A**

**Assimilate:**  
 Definition: to become a part of a country or community rather than remaining in a separate group  
 Word forms: assimilation(n), assimilative(adj)  
 Example: The immigrants were assimilated with the natives.

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**E**

**Ethnic:**  
 Definition -relating to a particular race, nation, or tribe and their customs and traditions  
 Word forms - (v) ethnic (n) ethnical (adj) ethnically(adv)  
 Example - The school teaches pupils from different ethnic group.

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**G**

**Generalization:**  
**Definition** - a statement about all the members of a group that may be true in some or many situations but is not true in every case  
**Word forms** - generalize(v) general(adj) generally(adv)  
**Example** - Try to avoid generalization.

Figure 12. Viewing the Glossary as a whole in alphabetical order

whole. They do this by going to the relevant glossary, clicking on its link and then looking at every item that has been entered and displayed on one page (see Figure 12). However, if the logs in the 'Action' column state 'glossary view entry' it means that students have clicked on and viewed a specific, individual entry outside the confines of the glossary as a whole. The only way this can be done is by clicking on a word that is shaded grey and has been used somewhere in a forum discussion or a journal for example. Thus, to see an equal amount of logs indicating 'glossary view' and 'glossary view entry' is very encouraging, as it means that students were utilizing the glossary and its items from different sources within Moodle. What is also important to note is that at the top of Figure 11 it says 'Displaying 419 records' and shows over five pages of logs, indicating extensive use of the glossaries.

## Conclusion

The desire of teachers to give students as many opportunities to learn has always been strong. However, a lack of resources or contact time often makes things difficult. This can be especially evident in the effort to teach vocabulary. As Nation (1990) says, learning vocabulary takes time. More often than not, however, teachers don't have the kind of time that intense vocabulary instruction requires. Furthermore, teaching vocabulary can take time away from other valuable classroom activities. The rise of technology and its accessibility, especially in the form of the Internet and the myriad of learning opportunities it provides, has been of immense help to teachers in so many ways. Moodle is a perfect example, in that it gives teachers so many avenues to explore and offers students chances to learn well beyond the classroom. Moreover, its constructivist nature and the way it merges different components together helps students enormously and removes a lot of the restrictions that time places on innovative teachers. Its incorporation into this intensive reading course has been hugely beneficial, as the limitations placed on a class that meets only once a week for 1.5 hours made it very difficult to give students everything they needed, particularly in regard to vocabulary acquisition. The integration of a student-generated glossary has empowered students by giving them a degree of control over their own learning, as well as providing them with a place to access new and relevant vocabulary at any time, often in authentic contexts. However, like anything, getting the most out of Moodle and the glossary took time and a lot of trial and error. Through mistakes and student feedback, changes to the glossaries were made that led to them being more widely used, accessed, viewed and taken advantage of repeatedly.

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### **Biodata:**

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