# Practical uses of Moodle for the non-tech teacher

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The number of academic institutions encouraging the use of information technology for language learning, such as course management systems (CMS), has steadily increased over the past few years. Using CMS allows teachers and students access to a virtual classroom, enabling them to communicate or post assignments without having to be physically present in a classroom. However, there is still some resistance from teachers who have little knowledge or experience of using CMS or technology in general. Two common concerns these teachers have are first, the uncertainty of the impact technology has on student learning and, second, possible belief that implementation of practical technology-based activities for learners would be complicated. This paper will set out to clarify the two issues: how the use of technology, utilizing a popular CMS called Moodle, can contribute towards improving student learning, while at the same time reviewing the different activity modules most commonly used in Moodle for student learning tasks.

多くの高等教育機関では、語学学習にCMS（course management system）のようなインフォメーションテクノロジー活用の促進が着々と増加している。CMSの使用はバーチャル授業が可能である。教師と学生両者が実際に教室に存在する必要なくコミュニケーションが取れ、課題の提出に至るまで、可能である。しかし一方では、CMS使用の知識や経験のある教員からは反対の声もある。　反対意見として、まず第一に、学生が学ぶということについてこのテクノロジーの不確実性、第二に実用的で便利なアクティビティの実施は、学生を困惑させるように思われる。続く論文はこれらの問題点を解明するのではないだろうか。Moodleの使用、オープンソースであるCMSの活用は、学習の向上に貢献できると同時に、もっとも使用されているMoodleにある違ったアクティビティモジュールが、課題の見直しにも活用できる。

The English novelist Burnett once wrote, "At first people refuse to believe that a strange new thing can be done, then they begin to hope it can be done, then they see it can be done – then it is done and all the world wonders why it wasn't done centuries ago." (p. 241). This is also true for digital technology for educational purposes. It was not popular at first, and then was slowly introduced into schools where it has since gained momentum and has now become a regular element in classrooms worldwide. In fact, Prensky (2001) noted that today's students, from kindergarten to university, "represent the first generations to grow up with new technology." These students, whom Prensky (2001) coined "digital natives," have lived their entire lives surrounded by computers, mobile phones, video games, email, and other digital tools. Therefore, they are likely to expect equivalent technology in the classroom.

However, simply using technology will not contribute to improved student learning. The right kind of technology, design and methods of implementation, must be considered before students can begin to learn. Therefore, this paper will focus on Moodle and how its multipurpose course management system (CMS) platform is adaptable for numerous educational settings, student abilities, and ages, especially, high school and university level students.

## Advantages of incorporating Moodle

Technology is at its best when utilized as an additional Web component for a regular campus-based class. Bender, an online instructor at Cornell University and an online faculty consultant, notes that a type of "hybrid" class is considered by many educators as the best of blended learning as it "facilitates the learning process and enhances both student-student and faculty-student communication" (2003, p. xvii). There are several recognized advantages for incorporating technology and traditional instruction that can improve student learning. One significant instructional technology available is Moodle, an open source CMS developed and created by Martin Dougiamas. Moodle has grown exponentially over the past decade and has become a highly recognized source for improving student learning. Since its inception in 2002, Moodle now has over 31 million registered users in over 3 million courses in more than 200 countries worldwide (Moodle, 2009). According to Dougiamas, Moodle was developed to support a social constructionist view of education (Moodle, 2009) where learning is not only achieved from the outcome of an activity, but also from participating in the activity itself. Therefore, Moodle's design allows for a multitude of technological tools to be used for the benefit of language learning all in one place. This consolidation of features is advantageous for student learning and teacher facilitation as Moodle's learning environment provides instruction, feedback, and assessment while also having an impact on the cognitive and social behaviors of students (Mayer, 2001). Thus, having a good understanding of some of the ways technology can be utilized for education can give teachers the basis for creating and implementing learning tasks online.

## Teacher interaction

An important variable that is enhanced greatly through the use of technology is teacher interaction with students. Rink and Yamauchi (2007) conclude that encouraging better teacher-to-student and student-to-student relationships can contribute to greater motivation in all students to use the language more often. In fact, Bender (2003) acknowledges the importance of personalizing education and said that, "being supportive and encouraging, giving ample feedback, being a good role model, being appropriately informal, and eliciting discussion" (p. 11) are all important factors to be considered as part of a teacher's style that is incorporated into an online environment. In the traditional classroom setting, teacher style is limited by the constraints of time and place. In a 50-minute or even a 90-minute class, there is limited time given for instruction, student tasks, class discussion and feedback. In addition, if a class only meets once or twice a week, how effectively will the teacher's style impact the classroom environment or influence student learning? If "learning time" is increased outside of regular class to one week, one month, or one semester, how much greater is the teacher style influence on the classroom and students? The advantages for both student and teacher are obvious.

Teacher feedback on tests and assignments improves student self-awareness of the language and leads to stronger autonomy as they gain confidence and become less dependent on the teacher. Students can get immediate feedback on quizzes taken in a CMS program such as Moodle and any feedback given to a student on a forum activity is stored permanently. Furthermore,

in a traditional classroom setting, the collection of student data, evaluation, and dissemination of feedback can be very time-consuming, and additional problems may also occur, such as students losing their feedback, or teachers being unable to access previous feedback for assessment. Thus, teacher feedback in Moodle that is archived and available immediately for review and reinforcement is advantageous for both students and teachers. Students can refer back to the feedback at their discretion and teachers can assess student progress throughout a course by tracking how students have used previous feedback to improve.

## Limiting student frustrations

There are many difficulties that arise when students enter the classroom. According to Bender (2003), "students risk being wrong, risk feeling embarrassed in front of the group, and risk not working at the same pace as others" (p. 4) when participating in a traditional classroom environment. These problems are certainly not exclusive to a regular classroom setting and can be experienced online; however, the risks can be managed far better through well designed tasks in Moodle. A good learning task set in an online environment should include a thorough explanation of the guidelines and expectations of an assignment. Students can reread to make sure they fully understand what is expected of them before they make any attempt to participate in a task or group discussion. This limits students' risk of failing to complete an activity because they did not understand the directions or goal of the task. Likewise, students who participate in online tasks often take more care in their work when they know that their posts will be reviewed by their peers and not just the teacher; this also limits the risk of not understanding an assignment if work is taken more seriously. Finally, the risk of student non-involvement in a discussion or an activity becomes minimal. Akerlind and Trevitt (1995) conclude that learner stress can be reduced with online tasks if several strategies are introduced. Certain strategies used include providing demonstrations of an activity, introducing different skills gradually, and providing opportunities for students to learn together. Moodle provides students a chance to reread complicated instructions or the choice of varying activities. Moodle also enables students to participate in an activity where they have more time to thoughtfully process and construct their questions and answers.

## Accommodating different abilities

Another advantage where technology can improve student learning is in the area of accommodating students of various ability levels. A frustration shared by many teachers is that no class will ever be equal in ability or contribution. It is a consistent struggle to find a balance where higher level students feel challenged while lower level students can be given the time needed to participate effectively. Using Moodle is one way to deal with varying levels of ability as teachers can create multiple tasks to match the different student abilities within one classroom (Rink & Yamaguchi, 2007). This is supported by Bender (2003) who said "online education can include many types of learning activities, and the array will recognize the multiple intelligences and varying learning styles of a diverse group of students" (p. 183). Students in a class may join in a common activity together where a learning objective is first being introduced and then they can subsequently participate in supplementary online learning activities that suit each individual student's ability. These additional activities can be made available in Moodle and students can access them on their own time or within a set time as indicated by the teacher. This is an important feature for giving students more autonomy with their learning. Higher level students can take responsibility for their own learning if they are able to skip simple tasks and start with more challenging ones. This could be a review of vocabulary from a unit or a quiz on grammatical structures learned. Likewise, lower level

students can try a simple task first to assess their knowledge or to gain more confidence with the language first and when they are ready and on their own terms, challenge themselves on more difficult tasks later. Meaningful and profound learning can be attained, according to Bender (2003), when "respect is given to the diversity of multiple intelligences and learning styles" (p. 183) of the students.

## Moodle beginnings: Forum module

Teachers new to using Moodle will have their students spend a majority of their time doing learning tasks within Moodle's forum module. Improving student engagement outside the classroom is vital for their learning and the forum module is an ideal place for students to interact and communicate off campus. More often than not, students respond positively when given the opportunity to talk or share ideas with their peers in a discussion forum setting outside of class. Roper (2007) states that more opportunities for deeper discourse can occur from communication through written discussion as students can spend more time developing their questions and responses. This is especially important when dealing with classes that have a mixed level of ability or personalities. Students, when engaged in an online discussion with their classmates, have an equal opportunity to participate at their own level, a benefit not practical in a classroom setting. Teachers also play an intricate part in student interaction and learning through online discussion beginning with the setup and initial introduction of discussion forums to the students.

### *Forum setup*

Moodle provides four types of forums, each having a specific purpose. Teachers may choose a "single topic" forum where only one topic can be discussed. This is useful for having a focused discussion on say, reviewing class rules or a "help me" forum where students can post problems or issues they are having with computer use or a homework assignment. Teachers may also use a "standard" forum in which any number of topics can be discussed. Therefore, students who participate in this forum may start as many topics as they wish and post as many times as they want. The third forum is student-initiated and focuses on one topic; this is useful for getting students to post personal reflections on an assignment, to post a weekly diary of their learning, or to post current events. Although students are limited to starting one discussion topic, they may post unlimited comments on other students' topics. The final forum is a "question and answer" type where students must post their opinions or ideas first before viewing other student postings. Once students post their initial response to any discussion topic within the forum, they can then view and comment on any and all other postings. This encourages students to post original and independent opinions before they can fully participate in a discussion.

After a forum type has been chosen, teachers decide whether or not to subscribe students to the forum. Subscribing to a forum essentially means that students will receive an email on their mobile phones or on their personal computer every time there is a new post to their forum. This is effective when students are working in a group within the forum as it will encourage higher participation if students know when someone else in the group has posted. Teachers can require students to subscribe during initial setup or leave it optional for each group or student to decide.

Another option available during setup is a posting limit as well as a time limit for posting in a forum. If a posting limit is set, students have a limited number of posts they can make in a forum. This can be utilized if teachers want high quality posts which forces students to consciously think about their answers

and fully prepare their responses before posting. Teachers can also limit the time students have to post to the forum to encourage early participation. This is useful if teachers want to have every student post an initial question to a forum by midweek, and then have students respond to questions by the end of the week.

Teachers can also assign students to groups within a forum. Groups can be set up to be either separate or visible within a forum. If groups are separate, then only members of a particular group can see each other's posts and all other groups are invisible. This option can be used when different groups of students are working on the same project or preparing a presentation on a similar subject. On the other hand, if groups are visible then every student can view other groups while working within their own group. This is useful when groups of students are working on independent discussion topics related to a similar theme.

### *Effective forum practices*

Teachers plan the forum goals, the guidelines, and learning outcomes for the students to maximize their time in a forum. This begins with the teacher's instructions that students see first upon entering a forum. Roper (2007) said, "Instructors who establish clear expectations as to how threaded discussions are used or who ask specific questions in response to student postings can expect to encourage richer online dialogue." This is equally important with regard to the rules for participating in the forum and the manner in which students should post comments in order to avoid any issues of abuse or improper behavior during a discussion.

To have an effective forum, a grading rubric should be implemented in the instructions to students at the beginning of the forum. Teachers can choose to grade on a number scale where student posts are valued depending on the amount of qualitative or connected thinking each student puts into their answer. For example, students can earn a maximum of 20 points for the forum discussion. If a student posts a response that is thorough, complete, and includes some thought provoking questions to continue the discussion, he or she may receive five points for the post. This means that the student needs to post four times to obtain maximum points. On the other hand, if another student posts a response that is vague or contains many incomplete thoughts, then he or she will receive fewer points and as a result will have to post more responses to reach the maximum points allotted. This allows strong students to be fairly rewarded for their effort while allowing passive students the chance to feel their way into the discussion while still being allowed to reach maximum points. Teachers can also grade on a maximum or minimum number of posts which can either encourage more participation or force students to carefully complete their responses and think things through before posting if they know they only have a limited number of posts they can make. Grading criteria implemented for each forum will have an impact on how students interact and post responses and teachers need to take careful consideration when deciding which grading method to implement with each forum activity.

## Quiz module

Moodle's quiz module, which is an entirely separate component from the forum activities, provides several testing advantages for both teachers and students. While creating quizzes does take time, these quizzes give teachers the opportunity to implement, grade, and give feedback to students in multiple ways that are other otherwise time-consuming or impossible to administer regularly in a classroom. The multiple options and tools available during setup give teachers flexibility to create exactly what they want.

## Quiz setup

Setup will be the most important stage of creating a quiz and teachers will decide several options during this time. First, will there be a time limit for taking a quiz? Students will be notified of the time limit and once time is complete, the quiz is automatically submitted for grading. Teachers may also set the number of times a student can take a quiz from one to six attempts or unlimited. If multiple quiz chances are allowed, teachers may set a time delay between taking each quiz. Time delays may be set up for 30 minutes to 7 days apart, from the first quiz to the second. Next, grading can be set up to record in multiple ways as well, including taking the highest score out of several or taking the average of a group of quizzes.

Once questions have been inputted with answers, they are kept in a question bank under categories specified by the teacher. Teachers may categorize questions under themes, units from a book, topics, or in a general category. Teachers can also elect to have questions appear at random for each quiz, so no two quizzes will have the same order or appearance of questions. In addition, a time limit for each quiz can be incorporated during setup to ensure students are well prepared before they begin. This is a huge advantage over regular paper-based quizzes as it helps prevent cheating by students. Furthermore, quiz questions can be presented in several types including multiple-choice, true/false, short answer, matching, gap-fill, sequence ordering, and in essay form. Each time a student takes a quiz, Moodle automatically takes the set of questions for testing and randomly presents them in any type of question form designated by the teacher during setup. Having the option to have as many randomized quizzes as you want, anytime, saves the teacher from having to create multiple variations of the same quiz by hand and provides more opportunities for evaluating student learning that usually wouldn't be feasible with paper-based quizzes. Last, and most importantly, feedback on performance is a critical part of a learning environment, and assessment is one of the most important activities in education evaluation (Moodle, 2009). Therefore, teachers may set up quizzes to give feedback after each correct question answered, after each incorrect answer or both which, given regularly, can help improve a student's ability to be more successful during the later questions of the same quiz or on future quizzes.

## Effective quiz practices

The quiz module makes it easier for teachers to implement better strategies for assessing student performance that would be all but impossible using a pen or paper (Moodle, 2009). Instead of imposing midterm tests or final semester tests, a number of smaller quizzes can be administered to provide much more realistic assessment of student learning throughout the semester. This strategy also helps to lower student anxiety with test-taking. Students often worry about what the test will be like and whether they are studying the correct information. By taking quizzes more regularly, students can become better adjusted to taking quizzes and tests. This will also contribute to improved quiz scores and higher learning performances. For example, teachers can provide practice quizzes from older material or test questions to prepare students for a future quiz or test. This is important, as having realistic situations for students to learn in is key to effective practice (Moodle, 2009). Teachers can choose to make quizzes to review chapter readings from an extensive reading course to encourage students to completely read and review the material. Scoring 60% or higher on the quiz will give students credit for reading the book. Scoring less than 60% means the student would have to spend more time reading the same book to prepare for a second opportunity to get credit. Teachers can also design zero point quizzes to preview vocabulary from book units to gauge students' general knowledge before beginning the unit or after an in-class listening task. Ad-

ditionally, audio and video files, including Youtube videos, can be incorporated into quizzes and tests. Through Moodle, there are endless possibilities for using quizzes with the ability to use them regularly with minimal effort that teachers would not otherwise have if administering paper-based tests or quizzes.

## Conclusion

Regular classroom lessons and materials have time and space limitations with regard to their immediate effectiveness and implementation that CMS technology, such as Moodle, can improve or enhance. Through Moodle, teachers can incorporate visual images combined with audio files, use videos, improve opportunities for greater feedback to students, and regularly test student achievement all in one place. This helps teachers to organize their courses better, and archive lessons and material for future use without having to prepare everything again, while students enhance their learning experiences through peer-to-peer interactions and multi-purpose activities. These advantageous features through Moodle are not readily available in tradition classroom settings. Furthermore, they would be difficult to set up and implement without a lot of preparation done outside regular class time. Using Moodle also contributes to more student autonomy as individual learners can spend as much time as they need to do assignments, listen to instructions, or take quizzes or tests. Just as student autonomy is improved through the use of Moodle, so too is the accommodation of different student learning levels. Moodle's many activity modules and instructional tools provide more use of the language skills to allow high-level students to be challenged. Likewise, low-level students can be encouraged to participate more often to improve their overall ability. However, all the advantages using Moodle or other technology are limited or lost if there are problems with design and implementation. Teachers with little knowledge of Moodle or planning technology-based tasks should start slowly and gradually increase the amount of technology they use in their classrooms. Moodle's own website provides discussion forums, how-to manuals, and video demonstrations for supporting Moodle users. Once teachers get accustomed to using Moodle, they will find additional tools and modules that will reduce the workload, organize student progress, and improve classroom teaching effectiveness. This will lessen the frustration and anxiety from a teacher's point of view and students will benefit from better-designed tasks.

## Bio data

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