

“Using e-learning via an online-learning Management System (*Moodle*) to supplement the high school English curriculum- exploring the possibilities and potential.”<sup>1</sup>

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#### ABSTRACT

*This paper explores the possibilities and potential for using E-learning via a learning management system to supplement the Shoin High School English curriculum. After briefly introducing the advantages for both students and teachers, the paper describes the myriad of possible activity-types that could be utilized using one particular LMS (Moodle), and then scenarios two possibilities based on an actual required high school textbook. The paper then explores the potential of E-learning for high school English.*

Key words: E-learning, Learning Management System, Moodle, Hot Potatoes, Task-chain, Quiz Module

As a prelude to introducing the possibilities and potential of e-learning and a learning management system, a brief definition of these terms would be appropriate.

What is e-learning? Amongst the many definitions of this term, “E-learning is learning utilizing electronic technologies to access educational curriculum outside of a traditional classroom” (elearningNC.gov., n.d.), is probably the most succinct. While even the use of a CD-ROM for language study constitutes e-learning, for most people, the term e-learning is probably more synonymous with learning over the Internet and refers to a course, or program delivered completely online.

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<sup>1</sup> This paper is an adaption of a “show and tell” presentation workshop given for Shoin High School teachers. Consequently, some of the information presented requires direct access to <http://shoin-elsat.com> for a better understanding.

E-learning, as a language-learning educational tool, is on its own of little value if there is no method of delivering it to students nor controlling how students interact with it. Therefore we cannot talk about e-learning in language education without talking about a learning management system (LMS). They work together. E-learning is the content and the LMS is the platform for delivering and controlling how that content is set up and delivered to students.

What is a learning management system (LMS)? Again, definitions abound but it ...“is a software application for the administration, documentation, tracking, reporting and delivery of electronic educational technology (also called e-learning) courses or training programs.” (Wikipedia, n.d.). A quick Internet search indicates that there is a multitude of LMS available. Ferriman (2013) lists the “top 20” of them- some are open source and free while others must be purchased. Each has its own strengths and weaknesses, but most have the following common core features:

1. STORE the material of a course through *powerpoint*, pdf, video / audio lectures, glossaries of terms, and links to other Web resources.
2. COMMUNICATE between teachers and students, or students and students via forums, chatrooms, messaging (email).
3. ASSESS the students via quizzes, assignments, surveys, badges.
4. COLLABORATION between students and each other via Wikis, forums, peer assessment.

The LMS that is the focus of this paper is *Moodle* (<http://Moodle.org>). The acronym stands for “Modular Object-Oriented Dynamic Learning Environment.” It is one of the free open-source LMS now available to educators.

*Moodle* is an online e-learning platform that allows teachers to deliver e-learning content / course to students through such modules as quizzes, assignments, practice activities, resources, links. It is designed to be used by teachers to make courses that are fully online or to be used as complementary to face-to-face classroom teaching. It allows students to engage in independently led social learning. They can talk to each other and collaborate on schoolwork.

*Moodle* allows students to access course materials, gain feedback, contact tutors, upload work, and see their grades. It is a web application that allows instructors to post course materials (like documents, discussion boards, assignments, video and audio) online making them convenient and available to their students around the clock. In addition, instructors can make use of discussion boards, announcements and other social media, expanding the conversion beyond the confines of a traditional classroom.

### **What are the advantages of using e-learning /*Moodle* for language over traditional paper-based homework?**

#### **For the learner:**

1. **Accessibility:** Because they run on computer programs, you can access online foreign language courses at any time, and provided you have some kind of Internet connection, anywhere- and this includes mobile devices such as tablets and mobile phones. Students can complete coursework from anywhere, and without having to travel. With paper-based homework, students need to be able to sit down in a room with a desk and chair and tools for writing.
2. **Repetition and own pace:** It is an axiom that almost no one can learn a foreign language after a few attempts nor that everyone learns a language at the same rate and pace. Therefore, commonsense dictates that repetition is essential. However, traditional class environments don't necessarily offer you the chance to repeat lessons on the spot without disrupting the teacher and the lesson. On the contrary, online courses do. Additionally, e-learning allows students to learn at their own pace, while providing a comfortable and safe environment. With paper-based homework, once the print has been filled in with ink, it cannot be repeated (unless it is erased or a new print is provided).
3. **Multimedia:** Multimedia features found in E-learning environments incorporate new ways to learn, including: videos, audio, interactive grammar correction tools, automation, chat boards, telephone, instant messaging, webcams, and much more. "Technology helps students learn and

stay connected. Plus, multimedia can increase students' retention rates and correct mistakes before they turn into bad and embarrassing habits." (Sumner, 2013). Detailed explanations in Japanese of difficult grammar and vocabulary can be easily linked within any activity or quiz- these explanations could be text, audio, video, or images. On the other hand, with paper-based homework, if a student doesn't understand a word then they have to go to another resource to look it up. But not with e-learning. Links can be embedded in an activity, or as I will show, predicted difficult words can have mouse over translations.

4. **Computer skills:** Students, by using online e-learning, develop and understand the computer technology as they become an active learner in the virtual classroom. Students also can learn English typing skills incidentally.
5. **Fun and challenge:** Activities, quizzes, depending on settings, can be done multiple times, challenging a student to get a better score. It also adds a fun element, as students enjoy the success getting instant feedback- especially when they get all questions correct, or they redo their mistakes and get the answers correct. This also gives a degree of satisfaction. There are also a number of game-like programs that add to the fun element.
6. **Accountability:** There is student accountability: with paper-based homework, it is often observed that students fudge their paper-based attempts, by handing in incomplete work, because they claim it was "too difficult" or they make their paper-based attempt 5 minutes before the start of class. There are also probably claims that they lost their homework, so that is why they cannot hand it in. *Moodle* negates these kinds of excuses. A teacher can check all attempts at an assignment, and grades can also be checked via the grade book. Also, there is no longer an excuse of "lost homework".
7. **All skills:** *Moodle* can, depending on the module(s), be used for grammar, vocabulary, reading, writing, speaking, and most importantly listening practice via audio and video.

### **For the teacher:**

1. **Promote student autonomy:** Again, quoting Sumner (2013)“Online language courses will help (students) learn a new language on their own. Hopefully, students will find online E-learning an interesting way to challenge themselves and grow. However, this could cause problems for students that aren’t as autonomous”. Teachers can use online E-learning to help those students who are not self-motivated, and help promote this important study skill (not only for language study).
2. **Student progress:** This point is connected to the point above regarding accountability. Teachers can keep accurate track of student progress via *Moodle’s* grade book. Teachers can also comment/ contact students via email through *Moodle* about work done completed or not completed.
3. **Control content:** Teachers can control the conditions by which a student studies a course by setting such things as the order of how the content must be studied, the timing: meaning when a student can start a course or when a student must finish a course, the scoring: the minimum score that must be attained by a student before progressing to the next content, the number of attempts: how many times is a student allowed to do an activity or quiz.
4. **Save time photocopying paper-based materials:** Making photocopies of paper- based materials is time consuming, expensive (paper, printer ink, and office supplies), and not very environmentally friendly. To repeat an activity or exercise using paper, a teacher would have to copy the resource over and over again. With a digital version this is not the case, and also, using a digital version, randomizing questions can also be automated so that students don’t answer the same questions all the time. Automatic grading of quizzes means teachers do not have to spend time marking many papers.
5. **Re-useable resources:** Once a resource has been made, it is permanently available. That resource can then be edited, upgraded, deleted.
6. **Free up classroom time:** As I will demonstrate a bit later, using *Moodle* for English language study could mean that class time can be spent on

other activities or skill work that requires more teacher-focused learning.

As indicated above, *Moodle* has many features and modules- some are standard, while others are third party add-ons that have been created/ adapted to work on the *Moodle* platform. For the purpose of this paper, two modules- one third-party and one standard will be introduced, and, as will be demonstrated, by just using these two modules, a myriad of language-learning possibilities and potential arise either for self-study or homework.

### ***Taskchain* module**

This is a third-party *Moodle* module. This module allows for the sequencing of multiple html activities. The main software that can be utilized for creating a *Taskchain* uses the software called *Hot Potatoes* (see <https://hotpot.uvic.ca>) or *Texttoys*. (see <http://www.cict.co.uk>). While *Texttoys* is not free, *Hot Potatoes* has now become a free software and in its standard form it is a suite comprising of five interactive applications. If one adds the tweaks/ add-ons made by various contributing authors to the *Hot Potatoes* suite and *Texttoys*, this paper recognizes a potential of 14 (there are more) useful interactive *Hot Potatoes* activities that can be created for language learning. Below is a taxonomy and explanation of those applications. It should be noted that for almost all of the activities mentioned below video, audio, images, web links, links to other files, as well as additional text can be embedded. One of the key features of using the *Hot Potatoes* software in a *Taskchain* module is that a teacher can control such things as minimum score required before a student can move to the next activity in the *Taskchain*, minimum time, maximum attempts, score conditions, sequencing of activities, etc. These activities are also interactive in that students get feedback on what answers are correct and what answers are incorrect. Students must fix their incorrect answers, and score all answers correctly before they can leave the activity and move to the next activity in the *Taskchain*. Points are deducted for incorrect answers and also when a student uses the hint button.

**JCloze:** This can be used for creating:

- (a) cloze –fill in the blank style exercises. With fill in the blanks, the author can choose to include a wordlist or not, as well as add clues/ hints for each blank.
- (b) dropdown menu style exercises that show all possible answers.
- (c) JCloze can be set up where each blank in a dropdown menu exercise can have its own unique distractors- the number decided by the author.
- (d) Another tweak allows the author to create an exercise where a student must find spelling errors, and by clicking on the incorrect words, the correct words are revealed.
- (e) The above (d) can be made even more challenging by requiring the student to click on the mistakes, grammatical or spelling, and for every found mistake the student has to type in the correct word(s).

**Jquiz:** This type of exercise can be used as multiple choice, multi-select, or fill in the blank questions. An author may also shuffle the order of the questions or the order of the answers each time the page loads.

**JMatch:**

- (a) In this type of exercise, students match words and definitions, or words and images, or words and video.
- (b) JMatch can be set up as a drag-and-drop style or dropdown menu style,
- (c) or flashcard style or,
- (d) memory game style.

**JCross:** This exercise allows the author to create a crossword puzzle. Distractors/ clues can be text, images or audio/ video.

**JMix:**

- (a) In this type of exercise, the author can create a jumbled sentence, where a student has to reconstruct the sentence (or parts of a sentence) in the correct order.
- (b) This can also be set up as drag-and-drop or click-on style. It is also possible to use JMix to drag a conversation into the correct order, but simple code tweaking is required to do this.

**Textoys:** *Textoys* is a suite of two applications. In this paper, the application *WebSequitur* is singled out. This application is most suited for creating dictation exercises,

where a student listens and types in the missing words. Each word is designated by \*\*\*'s - a "\*" representing one letter of a word. Authors can make this easier or more difficult by adding or decreasing the number of "free words". Free words appear in the whole text.

### **Quiz module**

The standard *Moodle* module "Quiz" is another useful module for the creation of either homework or self-study type activities. The Quiz module allows the author to set up and control a quiz with various options such as the possibility of opening/closing dates, minimum scores, maximum attempts allowed, the mode of the quiz-meaning whether it is set up as completely interactive where a student would get instant feedback after each question, or as exam-style where only the final score is shown. Any question can have embedded images, audio, as well as video added. There are a number of useful question types we can use for English language study, some of which are very similar to what can be done with the *Hot Potatoes* software.

**Matching:** Students match words and definitions. Alternatively, students can be made to match images and words, or video clips and words.

**Multiple choice:** A multiple-choice question can be set up as either one correct choice or multiple correct choices.

**Short answer:** Students have to complete a sentence with the missing word(s) phrase(s).

**True/ False:** Students select if the answer to a question is either true or false.

**Embedded answer:** This type of question style, unlike the question styles mentioned above, where only one question at a time can be created online, allows the author to create an unlimited number of questions with a choice of using multiple choice, matching, fill in the blanks, true/ false type of questions. A knowledge of a special *Moodle* question code (GIFT) is required, but it is easy to learn, and once mastered, can be very useful in creating multiple questions which can then by bulk be uploaded into a *Moodle* quiz.

**Drag and drop:** This type of question style allows the author to create a question where sentence parts must be dragged into the correct order.

**Ordering:** This question type is particularly useful for creating a question where



a student must drag the conversation lines into the correct order, or order words/phrases in the order that they are presented.

**Drag and drop on image:** This question type is useful for teaching vocabulary. Here a student must drag the correct words to the correct parts of an image.

**PoodLL:** The PoodLL recording question type allows students to record audio or video, or draw pictures, in response to a question in *Moodle* –useful for speaking and pronunciation practice.

### **The possibilities for Shoin High School English curriculum**

What are the possibilities? Two scenarios using concrete examples, using a *Taskchain* module and a quiz module may help to elucidate. The first scenario states: “ *the required course textbook is now either partially or completely a self-study resource*”. This now means that either all or some class time or some classes or all classes could now be devoted to other activities. As an example, the required Shoin High School 2<sup>nd</sup> year textbook “*Compass English Communication I*”- Part A (Lesson 1 Words to Live by), a reading about the author of the Harry Potter series is now either partially or completely a self-study homework resource. The *Taskchain* created should reflect the self-study scenario and must now, in effect, “tutor” the student. Consequently, the *Taskchain* needs to reflect this and include a link to an online dictionary as well as embedded Japanese translations where deemed necessary. The ordering and sequencing of the activities also becomes important, gradually building from a greater degree of dependency on Japanese translations to a greater degree of independence, where there is only English. The envisaged Taskchain sequence might look like this: flashcards (Jcloze)-review of some key/ difficult vocabulary-> memory game(Jcloze)- match Japanese and English,-> Listen and choose (Jcloze)- listen and choose the correct word to complete each blank.-> Listen and write (Jlcoze)- listen and fill in the words you hear.-> Spell it! (Jcross)- crossword puzzle, with clues in Japanese.->Comprehension of text- students can read/or listen and answer questions. Difficult words are mouseover-glossed in Japanese.->Dictation (Websequitar)-students listen and write the passage. Proper nouns and dates are free words.

The second scenario states that “ *the textbook is still used as the main classroom re-*

*source and the online homework is now used to supplement the classroom lesson as homework*". Again, using "*Compass English Communication II*"- Part A, as an example, the online activities give students additional practice with the key grammatical forms that are introduced in this lesson. As has been mentioned above, the quiz module can be set up in adaptive mode or test mode. In adaptive mode a student can get instant feedback on what answers are correct or incorrect. In test mode, students would only get feedback after they have completed the test. If the adaptive mode were to be used, students could make multiple attempts to correct their incorrect responses. An author could also add a grammar help using a mouse-over, which if students utilized would explain in Japanese the grammar point being targeted in the question. If so desired, speaking could also be incorporated into the quiz module. Students would be required to record their voice in response to questions. A teacher would have to manually listen and grade this type of question.

### **What is the potential of e-learning/ Moodle for high school language education?**

The potential of e-learning / Moodle for high school education is no longer governed by technological limitations. In fact, the question teachers need to ask now is not what can I do with e-learning/ Moodle, but what do I want to do with e-learning/ Moodle to enhance students' language learning? Three immediate potentialities utilizing e-learning / Moodle come to mind that would give students an additional environment for studying English outside the classroom, and not be related to any required text book. These are listening skills, vocabulary building skills, and exam preparation skills.

**Listening skills:** Since the introduction of a listening test in 2006 by the National Center for University Entrance Examinations, listening has now taken on a more important role in the high school English curriculum than ever before. Unfortunately, listening skills is something that most Japanese students are very poor at, for the simple reason that students are not exposed to enough authentic listening either in the classroom or outside of the classroom. Listening via Moodle is an excellent way to deliver this vital skill. Utilizing the Quiz module, listening can potentially be delivered using a level-based criteria (e.g. CEFR) or by topic-based criteria. Quizzes

can be set up with pre-listening section /question, followed by listening activities. For any listening activity that a teacher thinks may pose difficulty for a student, the transcript can also be embedded via a show/ hide buttons. As most students have mobile phones, listening can be easily done on-the-move e.g. while commuting to and from school, or at home just before sleeping- and of course, all student activity and results can be recorded by *Moodle*.

**Vocabulary building skills:** According to researchers (e.g. Nation, 2013), if a learner of English knows the first 2000 high frequency words of English, then these words cover over 80% of words in written text and almost 90% of words in spoken texts.

The study of vocabulary outside the classroom takes on even more importance when you consider that many of the required textbooks used do not really cover or do a poor job of covering the 1<sup>st</sup> 1000 or 2000 high frequency words. A case in point is the Shoin High school required textbook *Compass English Communication II*. When the vocabulary in this textbook is run through a vocabulary frequency program (see <http://www.lex tutor.ca/vp/eng/>) it reveals that the vocabulary presented in this textbook only accounts for 27.5% of the 1<sup>st</sup> 1000 high frequency words and 20.93% of high frequency words 1001-2000- a total of less than 50% of the first 2000 high frequency words.

Many vocabulary textbooks include a CD-ROM for self-study (for example Oxford Word Skills: basic level). As most students fail to take advantage of this interactive resource, potentially it can be converted/ adapted using various *Hot Potatoes* applications in a *Taskchain* sequence for self-study learning. The design of the *Taskchain* can, with a little tweaking and thought by an author, follow fairly faithfully the presentation of the vocabulary topics' activities as per the CD-ROM. While there is no way to check whether a student is using the CD-ROM for self-study or not, the appeal of when it is converted to a *Moodle* activity is that all student activity can be monitored and their scores recorded.

One could also envisage a deliberate study of high frequency vocabulary. This can be easily set up via *Moodle* using a variety of *Hot Potatoes* applications in a *Taskchain* sequence in combination with the Quiz module. One way to set up the study of high frequency words is to divide the high frequency words into “stages”- with each stage consisting of 3-5 word lists. Each word list would contain around 15 words. Students would first study the words in each list in a *Taskchain* using a set sequence formula: flashcard training (Jcloze)->Click and choose (Jcloze)- students complete sentences, choosing the correct word from a choice of two.-> Listen and choose (Jmix)-students listen to the words and click on them in the order they hear them. -> Match them up (Jmatch)- students match the English word to the Japanese meaning. -> Choose the correct word (Jcloze)- students complete sentences from a dropdown list. ->Spell the words! (Jcross)- students complete a crossword puzzle using Japanese translations as clues. -> Listen and choose (Jcloze)- students listen to a word and then listen to a sentence containing that word and click on it. At the end of a stage, students would take a matching quiz of 20-25 questions made with the Quiz module. The special feature of the quiz is that the questions are randomly generated from all the words in a stage. A time limit is set as well as a minimum passing score- the failure of which to attain would mean that a student would have to repeat that stage again at a later date. The quiz settings would prevent the student from taking the re-test earlier.

**Exam / Proficiency test skills:** Many high school students take proficiency English tests like *Eiken*, *TOEIC*, *TOEFL*. *Moodle*'s Quiz module is an excellent platform for delivering exam/ proficiency tests. The delivery of these types of tests could range from wholly intensive practice of different components of a test with embedded explanations/ commentaries in Japanese to complete mock tests that actually emulate real test conditions. The more a student gets used to the set up and feel of a particular test, the more likely they are to get a higher score in an actual test.

## **Conclusion**

The possibilities and potential of e-learning /*Moodle* for Shoin High School English study are waiting to be tapped into. The latent power that these supplementary lan-

guage learning tools can add to both the teaching and learning of English are in the end, contingent on 1) to what extent teachers are prepared to embrace the technology and systematically, with pedagogical prowess incorporate it into the high school English curriculum, and 2) to what extent students are trained in using the technology in such a way that they come to consider it at a very early stage in their English learning a routinely, normal way for supplementing their English language learning environment outside the language classroom.

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