

# Integrating the Moodle LMS with Classroom Instruction into a "Blended" Learning Environment

## The Beginnings of a Case Study

David R. Bogdan

(平成22年6月5日受理)

### 1. INTRODUCTION

*This "case study" centers around the author's recent attempt to integrate Moodle into several courses beginning in April/May of 2009.*

I had heard of Moodle before; probably the first time was when I had rejoined the Student Lists SL (originally International EFL/ESL Email Student Discussion Lists) and learned that one of the managers/developers of the project, whom I had been in correspondence with, had migrated the project from a listserv-based mailing list over to one run through Moodle—probably around 2004 or 2005. However, I had never thought to incorporate it into my own courses until 2008, when Ehime University (where I am currently a faculty member) began to support its use as a university-wide LMS.

Last year (2009) I finally made the leap, thinking that Moodle would make an effective supplement to a number of courses I was teaching at the time. I decided to very gradually integrate it into a select number of my classes a month or so into the Spring 09 Semester. What follows here is a preliminary report of this endeavor.

#### a. The Courses

To date, I have attempted to integrate Moodle into the courses listed in (1):

(1) Courses using Moodle

(a) *Ibunka he no Manazashi* "A Look at Foreign Cultures"

(b) *Eigo Komyunikeshon Enshuu I* "English

Communication Seminar I"

(c) *Eisakubun I* "English Composition I"

(d) *Eisakubun II* "English Composition II"

(e) *Kompyuta to Kokusai Komyunikeshon* "ICT and International Communication"

(f) *Ibunka-kan Komyunikeshon Enshuu* "Inter-Cultural Communication Practice"

(g) *Eibei Jijou* "Current Affairs in the English-speaking World"

(h) *Ibunka-kan Komyunikeshon Tokkou I* "Special Lectures in Inter-cultural Communication I"

(i) *Ibunka-kan Komyunikeshon Tokkou II* "Special Lectures in Inter-cultural Communication II"

The first course, (1-a) is a General Education general topics course which I team-teach with two faculty members from other faculties, and in which we invite guest lecturers from a variety of disciplines from all over the university to present topics, in English, in their own fields to students, both Japanese and international, from all faculties.

The next three, (b - d), are language-oriented courses with cultural emphasis added. These are taught to students from the Faculty of Education, mainly TEFL and EIU (Education for International Understanding) majors. Normally, freshmen take the first, and juniors and above take the other two.

Courses (e) and (f) are offered to second-term sophomores and above, and are, for the most part, computer and Internet skills classes. In the first, the students learn HTML, CSS, and JavaScript in order to produce interactive inter-cultural teaching materials, and, in the second, they use applications mainly from

the iLife and iWork suites to produce educational DVDs focusing on inter-cultural topics.

Sophomores, again mainly EFL and EIU majors, take this multi-topic course (1-g) dealing with inter-cultural issues.

The final two courses, (h-i), serve as supervised research for seniors preparing for and writing their senior theses. The student numbers in these class are quite limited.

### **b. Concepts: CMS, LMS, and Moodle**

We should probably go over some of the terminology and concepts before proceeding, especially with all the acronyms and initialisms that are often bandied about.

First, *Moodle* is an acronym for *Modular Object-Oriented Dynamic Learning Environment*. In a nutshell, it is a course (or content) management system for online learning. (Brandl) In addition to its role as a course management system, or *CMS*, Moodle also can also serve as an *LMS*, or Learning Management System. Ellis (2009) describes an LMS as "a software application that automates the administration, tracking, and reporting of training events," which is quite a mouthful, but what it boils down to is that, for example, in the case of Moodle, material can be presented and the learner's progress assessed in small units, or modules, which allow the learner to advance in step-by-step fashion.

A *blended* (or, as it is sometimes called, *hybrid*) learning environment "refers to courses that combine face-to-face classroom instruction with online learning and reduced classroom contact hours (in other words, reduced seat time." (Moodlerooms). This is, to some extent, what I was trying to achieve with my integration of Moodle into my classes. A fine distinction to make with a hybrid class is whether it takes the form of Web-enhanced classroom instruction or classroom-enhanced online instruction. In my case, I have so far ended up trying to enhance my regular face-to-face classes with online resources without

displacing the classroom contact hours. Below, I discuss some of the implications that come with taking such an approach, both from the instructor's and the students' perspectives.

Finally, just to add a bit more confusion, the term *VLE*, or virtual learning environment, is used by educational institutions with essentially the same meaning as *CMS*.

### **c. Why Moodle?**

Moodle is certainly not the only CMS/LMS software package available. Prior to its adoption of Moodle about two years ago, Ehime University had been using the very well-known and time-tested commercial Blackboard Learning System (formally known as WebCT).

While I am not personally privy to the reasons Ehime University made the change, many have made the case for Moodle. For example, Miyazoe (2008) points to a higher usability of Moodle over Blackboard. Then there is also the cost factor; Blackboard is commercial software, while Moodle is free and open-source. (This, no doubt, played a major role in my university's decision to make the switch.) In addition, Robb (2004) suggests that "Moodle's interface is much more intuitive than its for-fee counterparts." He also points to Moodle's extensibility and plethora of interface languages as definite advantages. In her presentation on Moodle, Roberts (2008) describes Moodle as a "place for creating learning opportunities" and for "enabling learning through doing in a virtual environment".

The Moodle Documents (at <http://docs.moodle.org/en/>) argues the case for an open source software package such as Moodle by citing its highly developed support network, the ability to customize it to the individual needs of an institution, the great opportunities for (and actual cases of) innovation, and its overall usability. Moodle can also be installed on most any platform: including Windows, Unix/Linux,

and Mac/OS X. All this adds up to Moodle being a very attractive alternative to its commercial counterparts.

## 2. PERSONAL OBSERVATIONS

Because it was essentially a learn-as-you-go situation, I began using Moodle gradually, in small increments. My main purpose was use it as an efficient means of disseminating course material and having the students submit assignments. I had been using e-mail in this way since the early 90s and had hope that Moodle would provide a more efficient means to accomplish this.

It did.

One aspect of the delivery and submission capabilities of Moodle that really made life easier was the ability to put up multimedia materials (such as videos) and allow the students, in their turn, to submit the same kind of materials. This certainly beat hands-down the sending and receiving attachments through e-mail, and it proved to be especially beneficial in the two computer classes.

For example, providing the students with HTML and JavaScript examples turned out to be extremely effective when doing it on Moodle. I was able to give two versions for each example: one, the source and the other, the way the browser would view it, along with the JavaScript interactivity. All I had to do, when producing a webpage resource, was to toggle between HTML source to produce the two different versions.

I also found Moodle to be exceptionally useful in giving students from one of the language & culture courses speedy access to videos of their performances. They are able to view these videos and then, through the questionnaires which I also provided, evaluate their own and their classmates' performances with a minimum of fuss. In this way, they are at least able to give and get some feedback.

Having said that, however, I had neglected, to a great degree, to take advantage of the social constructivism aspects of the learning system. I did

attempt some collaborative assignments through the wiki activity—for example, having the students join in in making up questions for quizzes or submitting written assignments so that everyone could see them and comment on them—but this was on a very limited basis and with mixed results. Some students complained that, by the time they accessed the wiki, other students had provided the same questions in advance. Others had trouble accessing the wiki itself because, for obvious reasons, only one person at a time can edit. Some also expressed concern about having their classmates view their work, but this is what collaboration is all about.

I have just now started grading assignments online, but, being a creature of habit, I am keeping the grades hidden from the students until the end of the term, when I average them up. In this way, I am defeating the purpose of using Moodle for its feedback capabilities, but some habits die hard.

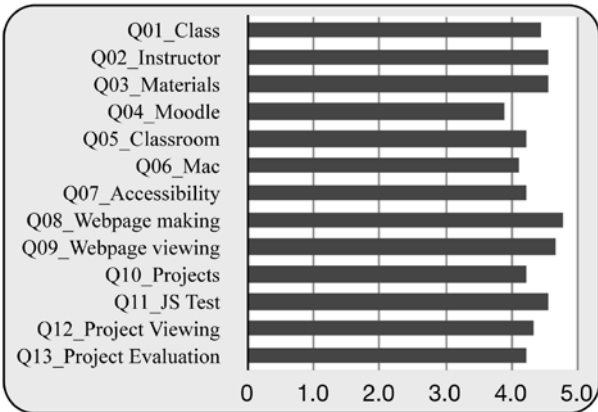
In spite of my unwillingness to drop some of my bad habits, I have generally found Moodle to have had a positive effect on my teaching, especially with regard to organization. I tend to have everything laid out much earlier in advance. Also, while I am not using the feedback aspect of Moodle anywhere near its fullest, I am able to provide some feedback much more quickly than I could previously.

## 3. STUDENT REACTIONS

### a. Mixed Results from a Course Evaluation

At the end of the Fall 09 semester, I asked the students to perform an informal in-class evaluation of the course. This evaluation included 13 questions where the students rated various items on a 1-5 Likert scale, including one question about the usefulness of Moodle (Q5). Unfortunately, at 3.89, Moodle received the lowest rating of all the items (The average for all the items was 4.37. This caused me some concern because I had just instituted Moodle for the first time

in this course and was hoping for a more positive response from the students; though, when I think about it, 3.89 out of 5.0 is still respectable. However, even though for me, as the instructor, being able to use Moodle was a godsend; perhaps the students, who were taking the course for the first time, had no basis to compare what it would be like to not have Moodle.



**b. New Survey (Moodle)**

Although I would have liked to have had more time to make changes in my Moodle use and then evaluate the students' reactions, with the deadline for this report looming, I recently found myself conducting a quick survey of the students' attitude towards Moodle.

I used the "Questionnaire" module in Moodle to produce (to be honest "throw together" might be a more accurate term) a survey tailored to my particular needs, which consisted of 11 questions: some fixed number, some Likert scaled, and some open ended. A copy of the survey can be seen in the Appendices, along with roughly translated and corrected (where necessary) responses to the open-ended questions. 33 students completed the questionnaire in time to be used here. Following is a discussion of the results.

The first four questions were related to the students' past and present use of Moodle to determine their general exposure to it. Unsurprisingly, there was no past experience for the first-term freshmen. Many of the Moodle-enhanced courses the students had, both past and present, were those which I taught or was teaching. Other than those, however, there was

a smattering of general education courses and other courses from the Faculty of Education.

The next question, quite simplistic in nature, just asked how the students would compare a course which made use of Moodle to one which did not. They were to choose whether they thought having Moodle along for the ride was Worse, The Same, or Better than not having it. Of the 33 respondents, thankfully only two felt that a course with Moodle was worse than one without it. 14 did not really see any difference, while the remaining 17 found having Moodle to be an asset. Considering that this is barely over half the respondents, it is hardly a resounding shout of approval for the way I have been utilizing Moodle, a result which jibes to some extent with the somewhat mediocre response I received on the evaluation mentioned above. In any case, let's go on to the other questions.

The next two questions, 6 and 7, asked the students to provide what they deemed to be advantages and disadvantages, respectively, to using Moodle. With regard to the question about advantages, when I first saw that 10 (nearly a third) of the respondents had answered "None"—meaning they saw nothing beneficial to using Moodle—I was a bit despondent. That was until I started examining (and translating) the multiple answers listing advantages. The majority of those concerned the convenience of being able to view materials and submit assignments anytime and anyplace. And some of the students were kind enough to note that it would also be convenient for the instructor, i.e. me. There was a smattering of other perceived advantages—such as being environmentally friendly—and the reader can look them over in the appendix, but, for the most part, it was the anytime/anyplace aspect of Moodling that appealed to the students who provided answers.

And now to the disadvantages. Fortunately, more students, a whopping 18 out of 33, found no disadvantages to using Moodle. Many of the

disadvantages given by the students concerned the inconvenience of having to have to use a computer: starting it up each time to use Moodle, problems with access (either during site maintenance or due to mechanical issues), and so forth. Other complaints stemmed from the learning curve. Again, the reader can look over the responses in the appendix, but I would like to mention one disadvantage that I found interesting: that fact that the students are not actually handing in something on paper can lead them to neglect their assignments. This is probably also a factor in reading the materials delivered through Moodle. Some, and maybe even most, students place more value on physically handed-out classroom material.

Question 10 consisted of three 1-5 (with "5" being the highest) Likert scale subquestions, where the students were to rate Moodle in general, its educational value, and its ease of use, respectively. The average ratings for these three items were: 3.58, 3.70, and 3.44. These ratings were consistent with the average rating given Moodle in the class evaluation mentioned previously: not terrible, but not so spectacular either. At least they were above average, but I definitely feel the need to improve the way I use Moodle so that the students will appreciate it more.

#### 4. TRIALS AND TRIBULATIONS

While Moodle has, for the most part, proven to be a boon to my teaching, my integration of it has not been without some hiccups.

For example, my "throwing together" of the questionnaire discussed in the previous section rapidly turned into a comedy of errors. Moodle questionnaires come in three types: Private, Public, and Template. I had wanted to use the same template in three different Moodle courses, so I chose Public because the Private type "belongs to the course it is defined in only." (Moodle help file) That turned out to be a big mistake because not only was the questionnaire shared in the

three courses, but any teacher on our Moodle system could see it and use it, and, not only that, the results from their students would (as far as I can figure out) come back to me. Having realized my error, I quickly attempted to change the type to "Private", but it turned out that the questionnaire type could not be edited. This could possibly be due to some setting that our Moodle administrator(s) chose, so I called the help desk in our IT center right away, but I am still waiting for a response over a week later. In the meantime, I have deleted the questionnaires on the three courses.

Another problem I had with the Questionnaire Module was the way it downloads the results in text format. My students wrote a lot of their answers to the open-ended questions in Japanese. The resulting file had some sort of encoding that I can not, for the life of me, figure out (and I've tried every one I could), and I am left with a bunch of garbled text. I need to find out how to deal with the encoding if I am ever going to use Moodle questionnaires again. The problem may be due to my being a Mac user, but Moodle claims to be platform-independent, so I would hope this is not the issue.

Mac users do have a definite platform(or more accurately, browser)-dependent issue with Moodle, however. The on-line editor that comes with Moodle does not play well with Safari, and we Mac users have to download another browser, often Firefox, if we want to take advantage of the editor. There is possibly a way to switch to a more universally friendly online editor, but that would be at the administrator level, which, at a university, involves going through a lot of bureaucratic hoops.

Another issue with Moodle's universality is how it handles names. Those familiar with Japan know that Japanese names tend to be listed in the so-called *goju-onjun*, which is a Japanese-specific non-alphabetic order. Unless there is some setting that our administrator could change, we are stuck with a student order that does not jibe with our roll-books

and grade-sheets.

One thing I would really love to be able to do in Moodle is to be able to simply copy resources and activities within the same course. In the editing mode, you can move the resources and activities, but there does not seem to be an obvious way to copy them. Perhaps backing them up and then importing them would do the trick, but that seems to be unnecessarily roundabout. When you are trying to set up the same activity 10 or 15 times, you want the process to be as painless as possible. Again, this may just be pointing to a lack of knowledge on my part; there may be some incredibly easy way to duplicate resources and activities.

## 5. WHERE TO GO FROM HERE?

The previous section makes it sound as though I have had nothing but problems with Moodle, but, to be honest, I fully intend to keep using it, because the pluses far outweigh the minuses. As a mode of delivery, it far exceeds anything I have used to date, and, as I noted before, it has really helped me in becoming more organized.

Also, the manner in which it facilitates communication makes it eminently suitable for team-taught courses such as the one described in (1-a), where the instructors have very little face-to-face contact. The same holds true for the two courses (1-h and 1-i), where I supervise my students' senior research. Seniors tend to be off-campus a lot while they are searching for jobs and/or participating in teacher training activities, and the on-line aspects of Moodle really help to keep us on track. Along the same lines, Moodle helps students in regular courses keep from "missing" classes; they can access much of the material from Moodle.

As mentioned earlier, I am still mainly at the "post and run" (Roberts: 2008) stage of my Moodle use and need to move away from simple transmission and delivery toward the instructor and students having

active engagement with materials and each other.

We have been having problems with the students in the General Education class (1-a) not viewing the prep-sheets prior to the lectures. Incorporating a short quiz on or even a discussion forum about each prep-sheet would increase the interactivity and induce the students to access the material.

A discussion forum might also negate some of the problems I had been having with using the wiki activity for collaborative work. In reading some of the relevant literature to prepare for this report, I ran across a mention of the ability in the forum to hide the individual contributions of the collaborating members until a certain point, at which the instructor can make them all visible to everyone.

One thing I have to be careful of, however, is to not overload the students in my enthusiasm for Moodle. The more work I can get out of them through using Moodle often translates, at least in their minds, to less time they have for other classes and other activities. This is a point I brought up at a colloquium on e-learning I attended recently. The guest lecturer was extolling the benefits in e-learning and how you can efficiently increase what the students learn. Japanese students, especially in the first two or two and half years of university have a tremendous number of classes a week, and they need to balance their time and effort among all these classes. There is only certain amount they can devote to one particular course. If an instructor just adds a bunch of Moodle activities to a normal face-to-face class, that just translates as more work for the students (and the instructor, of course), which may go a long way to explaining why the students in my classes have a somewhat ambivalent attitude towards Moodle.

If the powers-that-be at the university would recognize the merits and legitimacy of a hybrid class and allow some flexible time management, an instructor could make up for the time spent Moodling by reducing "seat time" in class. Believe me, the

students and many instructors could live with that.

## REFERENCES

Adams 12 Five Star Schools e-learning Portal. <http://eclassroom.adams12.org/course/view.php?id=17>  
[Last retrieved 5/25/10]

Brandl, Klaus. (2005) "Are you ready to "Moodle"?"  
in *Language Learning & Technology*. Vol.9, No.2,  
pp.16-23. <http://llt.msu.edu/vol9num2/review1/> [Last  
retrieved 5/25/10]

Dziuban, C.D., J.L. Hartman,, & P.D. Moskal. 2004  
"Blended learning". EDUCAUSE Center for Applied  
Research Bulletin, 7, 1 12. [http://net.educause.edu/  
ir/library/pdf/ERB0407.pdf](http://net.educause.edu/ir/library/pdf/ERB0407.pdf) [Last retrieved 5/25/10]

Ellis, Ryann K. 2009. "A Field Guide to Learning  
Management Systems" in *Learning Circuits*.  
Alexandria, VA, American Society for Training  
& Development. [http://www.astd.org/NR/  
rdonlyres/12ECDB99-3B91-403E-9B15-  
7E597444645D/23395/LMS\\_fieldguide\\_20091.pdf](http://www.astd.org/NR/rdonlyres/12ECDB99-3B91-403E-9B15-7E597444645D/23395/LMS_fieldguide_20091.pdf)  
[Last retrieved 5/25/10]

Miyazoe, T. (2008). LMS-based EFL blended learning:  
Blackboard vs. Moodle. In K. Bradford Watts, T.  
Muller, & M. Swanson (Eds.), JALT2007 Conference  
Proceedings. Tokyo: JALT.

Moodlerooms, Inc. FAQ Page. [http://www.  
moodlerooms.com/resources/library/faqs/](http://www.moodlerooms.com/resources/library/faqs/) [Last  
retrieved 6/2/10]

Robb, T (2004). Moodle: A Virtual Learning  
Environment for the Rest of Us.. TESL-EJ, 8:2.  
Available: <http://tesl-ej.org/ej30/m2.html> [Last  
retrieved 5/25/10]

Roberts, Allyson. 2008. "MOODLE – A pedagogical  
tool, or post and run?". Proceedings notes from  
*TEFL: theory, practice, and methodology. 1st  
International Conference on Teaching English as  
a Foreign Language* FCSH-UNL, Lisbon 28-29  
November 2008. [http://www.fcsh.unl.pt/docentes/  
cceia/documentos-cceia/docscceia/tefl1/aroberts.pdf](http://www.fcsh.unl.pt/docentes/cceia/documentos-cceia/docscceia/tefl1/aroberts.pdf).  
[Last retrieved: 6/2/10]

**Appendices: Survey and Translated Responses**

# Survey about Moodle

I'd like you to fill out a few questions about Moodle; you can answer in Japanese and it should only take a few minutes. Thanks

*1	How many courses using Moodle have you taken in the past?
<hr/>	

*2	Past Course Names? (You can answer "None", if you haven't taken any before.)
<hr/>	

*3	How many courses using Moodle are you taking now?
<hr/>	

*4	Present Course Names?
<hr/>	

*5	How would you compare a course using Moodle to one without Moodle?
<input type="radio"/> Moodle course not as good	
<input type="radio"/> About the same	
<input type="radio"/> Moodle course better	

*6	What are things you think are good about Moodle? (You can answer "None" if there aren't any.)
<hr/>	

*7	What are things you think are not so good about Moodle? (You can answer "None" if there aren't any.)
<hr/>	



<b>*8</b>	Your suggestions for how to use Moodle (You can answer "None" if there aren't any.):

<b>*9</b>	What kind of course(s) do you think Moodle would work the best with? (e.g. Language (conversation, writing, etc.), science, lecture, etc.)? Why? (You can answer "None" if you don't have any suggestions.)

<b>*10</b>	Please rate on a scale from 1 (=not good) to 5 (=good) how you feel about the following things regarding Moodle.																								
<table border="1" style="margin-left: 20px;"> <thead> <tr> <th></th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> </tr> </thead> <tbody> <tr> <td>Moodle in general:</td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>Educational usefulness:</td> <td><input checked="" type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> <tr> <td>Ease of use:</td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> <td><input type="radio"/></td> </tr> </tbody> </table>			1	2	3	4	5	Moodle in general:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Educational usefulness:	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Ease of use:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
	1	2	3	4	5																				
Moodle in general:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>																				
Educational usefulness:	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>																				
Ease of use:	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>																				

<b>11</b>	Any other comments? (optional)

### **Advantages**

None. [10 Instances]  
Easy to use  
We can use PC, so it's easy for me.  
Easy to operate, easy to see  
Easy to submit the homework.  
Use the Web to submit  
Easy to submit, any time or any place will do.  
I can see in my home.  
We can do any kind of homework everywhere.  
We can use it all the time, so it's convenient.  
If you have a PC, you can do the homework anywhere.  
Can submit assignments anytime.  
Can do it from home  
We can use it all the time.  
I can access information anytime.  
Can view the materials from class even at home.  
Convenience of submitting assignments through Moodle.  
Don't have to print, just input.  
Can check assignment status easily

Teacher can check assignments easily.  
Teacher can check homework easily.  
Easy to contact the instructor.  
Assures study time outside of class  
Completing assignments on the computer keyboard is fast.  
Can view other students' work.  
Can do everything on Moodle without having to print it out (especially good for those without printers)  
Convenient for this [particular?] class.  
Good for reviewing.  
The teacher always checks our work.

### **Disadvantages**

None [18 Instances]  
Sometimes I forgot the homework in Moodle Don't need paper, only a computer [disadvantage?]  
Sometimes it takes time.  
Sometimes it doesn't work.  
Takes some effort because you have to start up the computer  
Having to have a computer to participate  
Problems when the computer breaks down or when the server is undergoing maintenance late at night.

It's terrible having to start up the computer every time.  
Have to edit submissions in under 30 minutes.  
Sometimes difficult to use.  
Having to use a PC takes time.  
It's a pain to have to check up on things periodically.  
I am not very computer savvy.  
It's a pain having to use the computer.  
Can't access from cell phone.  
Moodle is difficult for me to use.  
Couldn't understand the explanations of Moodle given in the class.  
I don't understand the benefits (effectiveness?)  
Sometimes there are problems with (between) computers

### **Class to Use**

None. [12 Responses]  
Conversation  
Language [8 responses]  
Writing [5 Responses]  
It's efficient to write and hand in using the computer writing: Moodle is useful in composition classes where you have to do a lot writing  
Information Science classes, especially basic computer courses. Moodle is a necessity; you need it to check things.  
Lecture information. In sharing opinions with students.  
Classes where there is discussion.  
I can't think of advantages to using Moodle because I don't really understand Moodle itself

### **Suggestions**

None. [26 Responses]  
Access from the cell phone  
Good the way things are now.  
Introducing an independent learning system  
Sometimes it's good using Moodle for assignments  
English Composition Submissions