Blackboard vs. Moodle
A Comparison of Satisfaction with Online Teaching and Learning Tools

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What is Blackboard?

- Learning Management System (LMS) software partially owned by Microsoft
- Popular software used around the world
- Licensed annually (HSU pays approx. $8,600 each year)
- Used at HSU since 2001
- Over $1 million spent each year in the CSU on Blackboard licenses

What is Moodle?

- “Open source” (free!) Learning Management System (LMS) software
- Customizable by programming staff
- Flexible for the instructor and developer
- Supported by programmers world-wide

The Question ...

*Can free software satisfactorily meet the needs of students, faculty, and instructional technologists for online teaching and learning?*

Finding the Answer ...

- Consulted with colleagues at the annual CSU CATS (Community of Academic Technology Staff) conference
- Sought partners to replicate the experiment with Moodle--comparing it to the commercial software used at their campuses--so we could compare conclusions
- Chico, San Marcos, and San Francisco State agreed to join the research effort
- Found a teammate at Humboldt willing to teach online and pioneer with Moodle!

The Project

- Compared Moodle 1.3.2 to Blackboard™ 6.0 Basic Edition using a course previously taught in the classroom for 20+ years
- First experience using Moodle for both the developer and the facilitator
- First fully-online Moodle course in the CSU
• Facilitator’s first experience teaching online
• Students’ first time in a fully-online course
• 35 students thought they were enrolling in a face-to-face course
• Random assignment the first day of class: half in Blackboard, half in Moodle

Features Used

• Electronic assignment submissions
• Virtual areas for group work
• Self-assessment quizzes and online testing
• Sequential learning objects (Moodle only)
• Embedded ShockWave Flash (.swf) files
• Tracked specific student activity (Moodle only)
• Poll (Moodle only)
• Glossary (Moodle only)
• Survey
• Discussion forums
• Links to external Web pages

What the Course Looks Like

Moodle  http://learn.humboldt.edu/

• Blocks in three columns
• Course content column in the center
• Course content is organized by “week”, “topic,” or “social”

Blackboard  http://blackboard.humboldt.edu/

• Navigation buttons down the left side
• Opening at the announcement area

Facilitator's Feedback

Moodle advantages over Blackboard:

• Providing individualized feedback easily to all assignments
• Easier to track each student’s activity in class
  • When and how often parts of class accessed
  • From where students access the course

Blackboard advantages over Moodle

• More polished appearance
• Better gradebook
• Threaded discussions easily differentiate between read and unread posts
• Announcements are more prominently displayed upon entering the course

Student Satisfaction Did Blackboard/Moodle enhance instruction?
Blackboard:
- 0% strongly agree
- 23.1% somewhat agree
- 23.1% neutral
- 23.1% somewhat disagree
- 30.8% strongly disagree

Moodle:
- 7.1% strongly agree
- 21.4% somewhat agree
- 28.6% neutral
- 28.6% somewhat disagree
- 14.3% strongly disagree

Student Satisfaction Received adequate technical assistance?

Blackboard:
- 23.1% strongly agree
- 46.2% somewhat agree
- 23.1% neutral
- 7.7% somewhat disagree

Moodle:
- 42.9% strongly agree
- 28.6% somewhat agree
- 7.1% neutral
- 21.4% somewhat disagree

Student Satisfaction Technology-based activities developed problem-solving skills?

Blackboard:
- 0% strongly agree
- 53.8% somewhat agree
- 23.1% neutral
- 7.7% somewhat disagree
- 15.4% strongly disagree

Moodle:
- 21.4% strongly agree
- 0% somewhat agree
- 64.3% neutral
- 0% somewhat disagree
- 14.3% strongly disagree
Student Satisfaction

Well organized instructional materials?

Blackboard:
- 69.2% strongly agree
- 15.4% somewhat agree
- 7.7% neutral
- 7.7% somewhat disagree

Moodle:
- 57.1% strongly agree
- 35.7% somewhat agree
- 0% neutral
- 7.1% somewhat disagree

Student Satisfaction

Communication tools: Interaction with classmates?

Blackboard:
- 15.4% significantly enhanced
- 38.5% somewhat enhanced
- 23.1% neutral
- 23.1% somewhat impeded

Moodle:
- 21.4% significantly enhanced
- 50.0% somewhat enhanced
- 14.3% neutral
- 14.3% somewhat impeded

Student Satisfaction

Communication tools: Interaction with instructor?

Blackboard:
- 15.4% significantly enhanced
- 30.8% somewhat enhanced
- 15.4% neutral
- 38.5% somewhat impeded

Moodle:
- 14.3% significantly enhanced
- 57.1% somewhat enhanced
- 21.4% neutral
- 7.1% significantly impeded
Student Satisfaction
Web-based resources were effective learning tools?

Blackboard:
- 38.5% strongly agree
- 38.5% somewhat agree
- 23.1% neutral

Moodle:
- 35.7% strongly agree
- 57.1% somewhat agree
- 7.1% neutral

Student Satisfaction
Discussion Boards were easy to use?

Blackboard:
- 69.2% strongly agree
- 30.8% somewhat agree

Moodle:
- 57.1% strongly agree
- 28.6% somewhat agree
- 7.1% neutral

Results
Results
## Correlations

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**. Correlation is significant at the 0.01 level (2-tailed).

## Results

![Graph showing the correlation between Final Grade and Participation Scores](image)

Results
### Results

**End of Semester Evaluation Composite Scores**

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<th>Final Exam</th>
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**. Correlation is significant at the 0.01 level (2-tailed).**

![Correlation Scatter Plot](image-url)

**Results**
Student Comments

• Great experience
• I went into this course very concerned whether I could handle an on-line course or not. What I have discovered is how much I have learned from this type of learning format. **It forced me to participate a lot more frequently than I believe I would have in a traditional classroom setting.** Yes, I did put more time into this class than I might have in a regular classroom but it paid off for me. I learned I can do this!

Student Comments

• It was hard to finish assignments on time because it was hard to find computer access.
• One of the things I didn’t like about this class is that I received everyone’s responses to anything on my email account. This made me feel like nothing was private. (Moodle student)
• This class was a good learning experience. I am not sure if online classes are for me though. **Although someone who is shy like myself the online posts were great because I was involved in them, usually I don’t participate much in class.**

Student Comments

• I enjoyed the fact that I could log on whenever I wanted. The elimination of my alarm going off at 7:30 was awesome! I enjoyed the material and how it was presented.
• I found it difficult to remember that I had an online class that I had to check in with 3 or more times per week.
• Overall I thought that the online learning experience was good. **I felt that I learned a lot and was forced to read the text more than I do for most of my classes.**
Student Comments

- One thing that I didn't like was having to post 3 times a week. Sometimes, if I was one of the last people to say anything, I would have to come up with something original to say after their was not much else to add about the subject. It didn't happen too often though. *I just like how in a sit down class, when your having a bad day you can just let others speak up.*
- I had a hard time in this class because it was online. I learn better in the classroom with the teacher and students physically present in class.
- I really enjoyed taking an online class and look forward to taking another one this summer!

Student Comments

- I really enjoyed taking this class and I learned a lot and think I will be able to apply this knowledge in the future.
- I do feel like I would have learned more if it was in a class setting. I sometimes did not have the motivation to "learn" the material. With that said, I also did learn some valuable info. The posts made it easy to express my thoughts and participate with class mates.
- *When we first started this class I wasnt thrilled about the idea of an online class, however it ended up being alright.* Having the class online gave me the time to do the work around my schedule and I really liked having that liniancy.

Developer's Feedback

Moodle advantages over Blackboard:

- Easier to maneuver (fewer “clicks”!)
- Less area monopolized for navigation
- Easier to incorporate multimedia elements
- More tools available (glossary, poll, lesson, journal)
- Track student activity to see which parts of the course are preferred
- Quiz tool scores correctly and provides details on the student’s use
- Can be customized to add desired features
- Features are robust
- Survey allows as few as two choices

Developer's Feedback

Blackboard advantages over Moodle:

- Moodle’s fixed block at the top wastes screen “real estate”
- Blackboard’s features seem more intuitive for beginners
- Built-in survey tool already available
- Readily available “Resources” area for external web sites to be grouped
Moodle or Blackboard for Future Courses?

Developer Satisfaction

• Excellent local support to customize Moodle with more desirable features
• Better results incorporating video in Moodle
• Campus support to explain features and make implementation suggestions
• Flexibility results in some confusion when Moodle features are changed with no warning
• Remarkable array of tools in Moodle—some unavailable in Blackboard
• Not all Blackboard features work like they should: quiz scoring, replicating the course without breaking internal links, etc.

Moodle Customizations

• Essay questions added to the quiz module
• Surveys added
• Gradebook improved with added features
• Date/time programming for topics and/or individual activities
• Quickmail: Allows emailing all or selected students in a course with attachments and a history
• Features added to Moodle’s Lesson module
• MyFiles: Students and faculty share files with selected groups
• Return Assignment: Faculty return graded assignments to students

Student Satisfaction
Would like another (Blackboard/Moodle) course

Blackboard:

• 46.2% strongly or somewhat agree
• 30.8% neutral
• 23.1% somewhat or strongly disagree

Moodle:

• 57.2% strongly or somewhat agree
• 21.4% neutral
• 21.4% somewhat or strongly disagree

Student Satisfaction
Which do you prefer, Moodle or Blackboard?

No preference – 42.9%
Moodle - 35.7%
Blackboard - 21.4%

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http://www.internetonderwijs.net/artikelen2006/blackboardBB_vs_moodle.htm