

## DO STUDENTS ENJOY MOODLE? LEARNING STYLE AND ATTITUDE TOWARD MOODLE

Christina Chung, Ramapo College of New Jersey  
David Ackerman, California State University, Northridge

### Abstract

In higher education, using a Course Management System (CMS) has become quite widespread. As a result researchers have started to focus on the benefits of CMS in teaching and learning. A few studies such as Chung and Ackerman (2010) and Payette and Gupta (2009) have examined managing a CMS in terms of instructors' perceptions, but there is lack of investigation regarding student needs fulfilled by Course Management Systems.

Marketing instructors have adopted use of the system for both online courses and face-to-face classrooms. Some have suggested that student motivation is a key factor in the success of Moodle in the classroom and that students found it easier to use (Beatty & Ulascewicz, 2006). Students do like Moodle better than faculty (Payette & Gupta, 2009), but this may be a function of greater faculty familiarity with other classroom management software.

In contrast to instructors, students do not have as much choice about the use of a Course Management System. If the course is a required course, they can choose a course section. If it is an elective, they can choose not to take the course, but for the most part selection is likely more based on time and content than on instructor use of CMS. For the most part students will experience the degree of Course Management System that their instructors implement. Despite this lack of choice for students, CMS can influence the entire structure and flow of their coursework.

The purpose of this study is to investigate student perceptions in adopting and using Moodle and how their perceptions impact the effective use of CMS. First, the impact of learning styles on the functional benefits students derive from CMS is examined. Second, this research looks at the influence of several constructs including academic self-efficacy, internet self-efficacy, usefulness, difficulty, communication effectiveness and enjoyment on student perceptions of CMS. The findings help explain student perspectives on Moodle and provide the basis for suggestions as to how faculty can effectively implement Moodle for their teaching.

*Learning styles and CMS.* Can learning styles impact on student reaction to classroom management systems? If so, what dimension of learning style is most closely linked to adoption of CMS such as Moodle? Just as in face-to-face learning, students differ in how they prefer information to be presented online as well. For example, Saeed, Yang, and Sinnappan (2009) found that "sensors," who are careful and more detail-oriented, preferred email over other types of communication in learning where as others like "intuitors" and "visual learners" preferred blogs and videos respectively. Similarly, learning style can impact on how students utilize learning technology as well (Vigentini, 2009). Use of online material instructors supply to students is an increasingly frequently-used component of courses so it is important to determine the impact of learning styles on student perceptions of the different components of a classroom management system.

*Self-efficacy and TAM.* From a student's perspective, Moodle provides the means whereby they receive class materials and submit assignments to instructors. Studies have suggested that students do find online learning and components provided by most classroom software packages to be effective in overall learning (Clarke et al. 1999) and a CMS can be used in a variety of online active/passive learning experiences, including even a social dilemma game (Oertig 2010). Overall, they are in fact very positive about most aspects of a CMS (Carvalho et

al. 2011). This positive impact does not seem to vary by the learning style of the student (Young et al. 2003).

Despite these potential benefits, the use of a CMS is not always met with optimism. Could a lack of clarity about how to use CMS, the inability to complete tasks and perhaps the stresses or other negative aspects of using it lead some students to view it with disfavor? This could also influence student evaluations of a course and their instructors. More importantly, will marketing students want a CMS such as Moodle for their coursework? Is self-efficacy related to student perceptions in using CMS? How do marketing students feel about perceived difficulty, perceived usefulness, communication effectiveness and enjoyment in using Moodle? The two theories, self-efficacy theory and TAM, were utilized for a theoretical foundation in analyzing the relationships amongst these variables.

This study administered a web-survey designed to measure marketing student perceptions toward CMS. Data were collected using a convenience sampling method using a self-administered questionnaire among marketing major students. One hundred twenty five respondents from six marketing classes at a university in both the northeast and the southwest participated in the survey. Questionnaire items measured, Moodle usefulness, Moodle difficulty, Internet self-efficacy, academic self-efficacy, Moodle communication effectiveness and enjoyment.

Results suggest that the single most important factor in overall satisfaction with classroom management system is the control it gives students over their educational progress. Depending on how it is implemented by the instructor, CMS offers students flexibility in the timing and amount of work they upload at any particular time. They can also see their progress online. Such flexibility can empower students who otherwise may feel they are at the mercy of the instructor's or department's schedule.

The result of a positive relationship between difficulty and satisfaction or functional benefits of classroom management software was surprising. This relationship was also confirmed in further analysis and testing. Visual learning is also an important factor in overall student satisfaction with classroom management software. Given the graphics and visuals in CMS such as Moodle, visual learners would be more satisfied with the system. As this trend continues with software moving over to Apple-type graphics systems, visual learners will be at an even greater advantage in coming years.

The findings for incremental versus entity theories of intelligence are in line with what would be expected given extant literature. Those who had a more rigid entity view about their ability to deal with technology, it is fixed and can't change, were less likely to be satisfied with Moodle. Those who had a more flexible view of ability to work with technology were more likely to be satisfied with Moodle.

Laziness impacted negatively on the functional benefits of Moodle but not overall satisfaction. This finding suggests that harder working students are more concerned specifically with the functional benefits that can be derived from a classroom management system. They are not necessarily happier overall than lazier students with CMS such as Moodle. Lastly, results found that communication benefits, both communication and verbal learning style are significant, are an important perceived benefit of classroom management systems to students. Moodle does help facilitate communication both between student and instructor as well as between students themselves.

SEM results indicate that students who are confident in their overall academic abilities will tend to be more confident in other areas such as internet or technology usage. Overall academic

self-efficacy led to internet self-efficacy and the internet self-efficacy is significantly related to perceived usefulness and perceived difficulty. Even though there is significant relationship between perceived usefulness and perceived difficulty, the only important factor that is positively related to communication effectiveness and enjoyment in using Moodle is perceived usefulness. These results suggest that the perceived usefulness of classroom management system is the key to students using it. If they feel it is useful in an overall way, they will use it to communicate with their instructors and their classmates. They will also enjoy using it, which will likely increase the time and scope of activities for the classroom management system is used. Results also suggest that the effectiveness of a CMS as a communication tool can impact on enjoyment with using, perhaps at least within the scope of the class, taking on the role of social media of choice for students.

References Available upon Request