

Implementing Blackboard in Cedar
Rapids Community School District High
Schools

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Cedar Rapids Community School District has approximately 16,503 students (K - 12) and 1,310 teachers learning and working in 24 elementary, 6 middle and 4 high schools. As part of the district goal of continuous improvement, teachers participate in Professional Learning Communities (PLC). Within content specific PLCs, teachers work together to improve instruction and create common assessments. It is difficult, however, to compare data and implement assessments without a formal means of collection and communication.

Blackboard, a proprietary course management system, provides tools which support PLC goals, which will be described further below. Throughout this paper, we will learn about course management systems and compare them to other available technology. We will compare Blackboard to other platforms and describe the benefits and drawbacks. There will be a discussion about resistance to new technology, why it can fail to catch on and how we can avoid some common pitfalls. Lastly, we will discuss why students learn more when in-class learning is supplemented with online content provided by Blackboard. The course management system Blackboard benefits the professional learning community reform movement and provides superior support for student learning.

Course management systems (CMS) are online tools that allow an instructor to post information on the Web without understanding HTML or other computer languages (Trotter, 2008, p. 3). CMSs provide instructors with the ability to perform the following tasks: place course materials online, track student progress through assessment features, facilitate discussion boards, make general

announcements, communicate with students individually, and receive and grade assignments (Carliner, 2007, p. 1). Course management systems range in price from free and open-source to very costly, sophisticated platforms. CMSs are easy to use and require few specialized skills for implementation. As with any tool, there are limitations and solutions, which will be discussed further.

Course management systems are often confused with learning management systems (LMS) which primarily act as an electronic registrar. LMSs perform the following tasks: registration, tracking attendance, tracking completions, grading and aggregated reports (Carliner, 2007, p. 4). Cedar Rapids Community School District adopted the LMS Powerschool district wide in 2009. Powerschool will register students for appropriate classes, maintain attendance data, and perform grading functions, but it does not have the flexibility necessary to perform the functions of course management systems to support student learning.

Professional learning communities (PLC) are a popular tool for improving student learning in public schools. Richard DuFour, one of the developers of this reform movement, reflects on the “big ideas” behind PLC in his article *What Is a “Professional Learning Community”?*. Big idea number one is ensuring that students learn. In order to improve education, we must move from a focus on teaching to a focus on learning (DuFour, 2004, p.1). Educators must determine goals and objectives, the means to assess students learning, and what to do when students are not learning. The second big idea is a culture of collaboration. Although many faculties collaborate to build camaraderie, improve attendance,

form policies for discipline and social climate, none of these represents the kind of professional dialog necessary for a PLC. The PLC collaboration is a systemic process in which teachers work together to analyze and improve their classroom practice (DuFour, 2004, p.3).

This leads us to the third big idea: a focus on results. Data becomes a catalyst for improved teaching practice when teachers can identify how their students performed on each skill compared with other students (DuFour, 2004, p. 5). Professional learning communities require educators to stop working in isolation and hoarding their ideas, materials and strategies (DuFour, 2004, p. 6). Course management systems like Blackboard help teachers share their work and compare student data by breaking down answers to assessments in a variety of ways.

Concerns about poor pedagogical decisions associated with CMS use underestimate the passion of faculty to teach well and attend to students' desire to learn actively and socially at any time (Carmean & Haefner, 2002, p. 28). Though we have seen through Cuban (1984) that top-down technology implementation is not effective, teachers *are* trying a variety of systems on their own. With a CMS like Blackboard in the hands of a professional learning community dedicated to best practices and student learning, students may find a deeper understanding using the five learning principles Carmean and Haefner describe in *Mind Over Matter (2002)*. The principles include learning that is social, active, contextual, engaging and student-owned, which are similar to principles described by Palloff and Pratt (2007). We will find throughout the

following pages that Blackboard provides the structure and support necessary to meet all of the professional learning community goals of the Cedar Rapids Community School District.

Competition in the course management system market is, like any other market, fierce. Free, open-source platforms like Moodle are “free like a puppy, not like a beer;” costs include computers, networks, and personnel to install and maintain the hardware and software, as well as the cost of training teachers (Trotter, 2008, p.2). Moodle “may be downloaded and installed on as many servers as required for free ... luckily, only the IT department needs to get under the hood, “ and this is a problem for the Cedar Rapids Community School District’s already very busy IT department (McCall, 2009, p. 1). The open-source systems are also more work for teachers to set up and run, requiring them to understand some programming.

Blackboard merged with WebCT in 2005 to form the largest for-profit CMS provider, which provides a wide variety of products. “For an annual fee starting at \$10,000, Blackboard will host an e-learning system, with software and training included, for an unlimited number of courses” (Trotter, 2008, p. 8). In an era of budget cuts and teacher lay-offs, \$10,000 is a lot of money, but recently, Blackboard made its most basic course management system platform free to non-profit, academic settings.

Public, K-12 education settings like the Cedar Rapids Community School District meet the requirements for free access to Blackboard and benefit tremendously from CMS use when implemented within the PLC framework. The

K-12 market for course management systems is expanding, particularly in high schools, where they are seen as a way to prepare students for higher education and help teachers create, manage, share, and organize course content (Trotter, 2008, p. 5). Teachers easily share modules and assessments within Blackboard, and teachers with SCORM compliant Moodle lessons can transfer them into Blackboard, reducing duplication of effort (Chan & Robbins, 2006, p. 495).

Sound educational pedagogy is required for implementation of any technology in the classroom (Healy, 1998). Among the dozens of approaches to instructional design, ADDIE is one of the most widely used. ADDIE stands for Analysis, Design, Development, Implementation and Evaluation, and it is a preferred method of instructional design for online courses (Chan & Robbins, 2006, p. 492). While designing an online component of coursework, teachers need to be aware that live, face-to-face teaching techniques may not transfer well and pay close attention to the evaluation phase of planning. The evaluation phase will help teachers assess “the success or failure of learning” which is one of DuFour’s big ideas (Chan & Robbins, 2006, p. 492).

Research has found a disparity in the implementation of course management systems among educators; issues that affect implementation include technical experience, discipline of the course, personal concern about copyright and the impacts of other technologies (Jarrahi, 2008, p. 259). Moodle, Google Sites, Wikispaces, and other free tools are more difficult than proprietary software to learn, but even easy-to-use Blackboard can intimidate teachers who are not confident in their technical skills. Training courses, like the ones provided

by Blackboard, are “an efficient way to increase adoption of CMSs among academics” (p. 259).

Ullmann (2009) outlines how CMSs provide benefits in higher education settings, which apply to high schools as well. Recently, the Cedar Rapids Community School District adopted Powerschool and SmartBoard technologies. Online lessons via Blackboard would provide easy access to training lessons, discussion board forums for questions, and other resources such as web links to help faculty use these technologies to the fullest. Other uses for CMSs to provide faculty support structures include easy access to forms, data, communication, and abilities for sharing content and assessments.

Educators in a variety of fields have embraced course management systems, but “Kofler argues that individuals from maths and science departments are more likely to embrace CMSs as opposed to their counterparts in social sciences” (Jarrahi, 2008, p. 259). Blackboard provides numerous collaborative tools including blogs, wikis and discussion tools, which teachers from social science and humanities classes already embrace to encourage critical thinking, communication and writing skills. With these types of Web 2.0 tools built in, Blackboard provides a secure way for students to interact online, and is easy for teachers to set up. This does not replace traditional curriculum choices, but supplements in-class time.

Teachers may believe that the only option for assessment on Blackboard is multiple choice tests, which do not promote higher level thinking, but this is far from the truth. Assessment options include short answer, essay and file

response questions as well as multiple choice, calculated response, matching and true/false questions. The testing configuration allows students to use spell check on longer answers, but they do not have access to grammar checking tools like those in most word processing software. In this way, teachers receive legible answers that accurately reflect students' writing skills and knowledge. Teachers also create model answers to assist in assessment and as feedback for students. With experience, teachers become more proficient at requiring higher level thinking in their assessments, no matter the type of question.

Many teachers will protest that they are teaching different topics at different times of year, but this is a poor reason to avoid collaboration. Take language arts for example. Teachers have the same core concepts no matter what text they are using. It does not matter if students are reading *Huck Finn* or *The Great Gatsby*; students should be able read, comprehend and analyze literature. Questions like “*Who is the protagonist?*” or “*What is the theme of chapter 2?*” can be modified to suit any piece of literature, and allow teachers to compare student learning on these types of objectives to assess best teaching practices.

The time involved in creating an online component to complement in-class curriculum can be draining, but it is worth it in the long run. In *Understanding the Experiences of Instructors as they Adopt a Course Management System*, West, Waddoups, & Graham (2006) cite many factors which influence educators to use or discard course management systems, and the biggest is set-up time. I currently have three courses on Blackboard. For two of the classes, I am the

only teacher in the Cedar Rapids Community School District teaching the subject so set up has been laborious, but the payoff has been tremendous for both my students and me.

For my third Blackboard class, I collaborate with my PLC, which includes Lisa Digman and Keith Kraeplin. This reduces the amount of time for set up but elicits an even greater payoff. We compare student performance on assignments and assessments to determine which teaching practices are reaching the most students and interventions when individuals need help. Collaboration in online course creation supports the goals of our professional learning community, and with collaboration time built into our schedules, working with other teachers to implement the Iowa Core Curriculum is easy.

In our use of Blackboard, my PLC has found that students who access Blackboard outside of class on a regular basis do better on tests, ask more relevant questions, and demonstrate more proficiency on tasks in class. Unlike a textbook, we can see how often students are accessing the course materials available online, encourage use, and have conversations with students who neglect to use the system. Students absent due to illness or vacation can access materials in order to stay current with the class. Students can also access power point lectures, activities, and previous assessments in order to study for tests and quizzes and prepare for class.

Currently teachers are using Google Sites, Moodle, Wikispaces, and blog services to supplement their curriculum online. If all Cedar Rapids Community School District teachers employ Blackboard, students will only have one outlet to

master rather than a confusing array of products. Teachers can post schedules and email or text announcements, which “keep the students aware and up-to-date whenever they enter the CMS and whenever they are ready and able to listen” (Carmean & Haefner, 2002, p. 29-30).

Using Blackboard will also help students get ready for higher education and workplace training using online systems and prepare them to use online resources responsibly. Students have grown up digital and see technology not only as a social and interactive tool, but as an indispensable part of life. Diverse learners, shy students, reflective thinkers and non-oral learners have more chances of absorbing information in the asynchronous environment of a CMS (Carmean & Haefner, 2002, p. 30). A new feature of the next generation of Blackboard allows students to log in using their Facebook, Google, Yahoo, Twitter, or Windows identifications, integrating the platform with tools most students already use on a daily basis. This also means no more “I forgot my password” excuses.

Blackboard also eliminates other perennial excuses for not finishing required reading or completing homework because everything is available all the time. In addition to the standard curricular resources, there are also supplementary internet resources available to incorporate into Blackboard. The amount of educational content available on the internet is staggering, and not all of it is good. Educators have to evaluate the games, simulations and flash animations included in any site (Healy, 1998). Some people will question the benefit to students who lack internet access at home, but Cedar Rapids

Community Schools have numerous computer labs, which are accessible before and after school. The Cedar Rapids Public Libraries also have free computer rooms, and home computers *are* more and more common.

Research shows that access to a computer at home does not correlate with better academic performance though. Students in low socioeconomic brackets actually experience negative effects when computers are introduced at home; “access to broadband internet appears to crowd out studying effort, presumably by introducing new options for recreational use by students” (Vigdor & Ladd, 2010 p. 12). If teachers provide a model of productive use of Blackboard resources, monitor student use outside of class and post exciting, relevant material, perhaps we can narrow the achievement gap and provide students with valuable learning that will stay with them throughout their lives.

The course management system Blackboard provides superior abilities to collect and analyze data necessary to improve student learning through professional learning communities. I am not advertising for Blackboard, but this product is free and provides many wonderful opportunities for collaboration and learning. The Cedar Rapids Community School District professional learning communities would benefit from using this product, which means student learning improves. That is our goal as educators.

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