Improving Classroom Learning
In the book *Curriculum 21: Essential Education for a Changing World*, Bill Sheskey, a former classroom teacher, technology specialist, athletic coach, and now a teacher-educator, writes, “Educators in the 21st century realize that students entering the classroom today are much different from those who have come before. Today’s students are demanding a change in the classroom because of their ability to gather information faster than any other generation.” He states further in the article, “To make authentic connections with students, we must change our strategies to fit this new age of students. With the resources available today for use in the classroom, such as interactive software, digital imaging, audio and video creation tools, on-demand video libraries, computers and LCD projectors, and Web 2.0 tools, the hardest job may be choosing which tool to use and how to integrate it into the classroom. It is the greatest time in history to be in a classroom because learning technology is changing at an exponential rate, and our students can thrive with it.”

**Improving Classroom Learning**

In a survey conducted among high school students, the following improvements in classroom learning were reported:

- Work at my own pace: 70%
- Be in control of my learning: 60%
- Get extra help in a subject that is hard for me: 50%
- Easier to review class materials many times: 40%
- More comfortable asking teacher questions: 30%
- Receive more attention from my teachers(s): 20%
- Easier to share ideas with my classmates: 10%

![Bar chart showing percentage of students who took an online class and those who desire online learning in the ultimate high school.](chart.png)
Online learning value proposition for students: Personalized Learning

From the Learning in the 21st Century: 2010 Trends Update data above, we see the high percentage of students who see a multitude of benefits from online learning. Both students who were asked about benefits that could be achieved from designing their “ultimate school” and those who had actually enrolled in online courses see value in this type of learning.

Sheskey’s enthusiasm opens a window on the kinds of learning environments that can support the development and delivery of productive, powerful 21st century instructional experiences. Educational visionaries and practitioners alike agree that these kinds of quality learning environments are not only possible, but critical if we expect students to excel in today’s globally connected world.

What characterizes this ‘high-performance’ learning environment? In part, it’s a classroom that uses technology fully. It’s a learning environment that includes a learning management system and both wired and wireless access for students, teachers, and parents. It gives users on-demand access to the content, tools, training, information, and support they need to create and enhance learning relevance and efficacy through both school-provided and personal technology. The purpose is to improve achievement outcomes for every student.

Enabling the Vision: A New Genre of Learning Management Technology

To unleash the power and potential of this new learning environment, a robust, fully functioning learning management platform is more critical than ever before. It’s more than a quest for the newest or latest technology. Instead, it’s a growing knowledge that the best learning management technologies focus on the learning experience and work to drive all of the technology components within a high performance classroom.

For the purposes of this paper, a learning management system (LMS) is defined as a comprehensive, online learning platform that facilitates and supports virtual course delivery, professional development, and a range of classroom instructional resources and strategies. Additionally, “Our teachers know how to use our technology so they can spend more time with students. Their frustration is reduced and our technology investments are more productive. We’ve also seen that shared document creation means less teacher prep time, more time with students, and a more interactive, engaging classroom experience.”

Pam Willingham, a National Board Certified Teacher, Teacher on assignment for Applications Training, Volusia County School District, Florida
While it’s important to look at the values a high-performance LMS supports, there are a host of highly practical benefits as well. These include but are not limited to:

- **Enhanced content/course delivery:** instructional materials available any time/anywhere for students and teachers’ professional development.
- **Flexible content management:** learning modules provide a wide variety of structured learning experiences.
- **Accessible community/parental involvement:** drive information and access parents’ engagement in student’s learning.
- **Strategic outcomes assessment:** teachers have a clear perspective about what a student knows and doesn’t know and can differentiate learning experiences accordingly.
- **Prompt, accurate alert/notification:** parents receive critical information in a timely way about student attendance, performance, and other issues.

A Closer Look at LMS Benefits

The LMS that drives the vision of a rich, robust learning environment delivers and supports these critical components:

- **Student engagement** through multimedia content and an intuitive Web 2.0 user experience. This includes wikis, blogs, journals, chat, and other tools that promote active, learning-focused collaboration and social learning in and beyond the classroom.

- **An improved teaching experience** that encompasses relevant, flexible online professional development and integrated efficiency tools that enable strategic lesson planning, instructional productivity, and collaboration.

- **Standards alignment for curriculum development and performance assessment** with centrally managed grades, integrated lesson plans, and reporting.

- **Efficiency and efficacy in the use of core resources** resulting from automated standards mapping and streamlined processes. This gives schools and districts the opportunity to optimize current technology investments by integrating instructional and administrative tools into one central hub.

**Professional Development: Critical to Improving Classroom Experiences and Outcomes**

In Volusia County School District in Florida, district leaders recently expanded their use of their LMS, adding a community and a content management module. This strategic decision enabled the district to create a district-wide online presence, organizing its 150+ websites. With 5,400 teachers in the district and budget constraints resulting from recent economic challenges, the Superintendent determined that all professional development that takes place on district time and earns in-service points would migrate to online delivery. The district is using online professional development...
both for continuing education applications to help teachers meet in-service point requirements and to help them learn to use and integrate technology.

Pam Willingham, a National Board Certified Teacher, and a teacher on assignment for Applications Training, explained more about the district’s situation: “Our district is pushing a great deal of technology into the classroom—everything from ceiling mounted projectors to laptops and our teachers needed a great deal of training. Our Management Information Systems (MIS) group offers our own online PD. We don’t offer in-service points, but we provide on-demand training to help our teachers use and integrate technology. For any piece of equipment or software, we prepare training that includes everything from quick reference posters and flyers to online courses and video-based professional development. Using our LMS, we have created collaborative teacher groups. For example, we have a user group for our new interactive whiteboards. This group collaborates, shares documents and ideas, and even has a subset to help new users. This group is now more than 160 strong. Our first grade teachers teamed up when we introduced a new reading series and shared the work of creating flip charts. The resources were posted on our LMS and that saved them time.”

Willingham emphatically notes that the benefits of their online approach to professional development and technology training for teachers accrue to both teachers and students. She notes, “Our teachers know how to use our technology so they can spend more time with students. Their frustration is reduced and our technology investments are more productive. We’ve also seen that shared document creation means less teacher prep time, more time with students, and a more interactive, engaging classroom experience.”

When asked about additional advantages, Willingham shared that as a result of their website streamlining, resources are easier to find and because of that parents are having much improved user experiences online. The district is now fielding nearly 1 million web visits a month and a healthy quotient of return visitors.

Said Willingham, “Our use of our LMS for technology and equipment training may very well open the door to further expansion, so we will teach teachers how to use the tools within the LMS. We already have teachers eager to use our system’s tools for blended or hybrid learning and teachers who want to create and use their own websites for instruction.”

“Our district is student-focused and our LMS supports that vision... The biggest improvement is that learning is no longer contained to the classroom and students are working in a medium in which they are very comfortable. Lectures are becoming more visual and students appreciate the visually modified versions.”

Debbie Latteri, Principal, Independence High School, Roseville Joint Union High School District, Roseville, California
Looking at a Traditional Classroom...in Remarkable New Ways

Debbie Latteri is the Principal at Independence High School in the Roseville Joint Union High School District in Roseville, California. She’s also the building’s Blended Learning Coordinator and their Credit Recovery Administrator. In her district, 68 percent of the educators are actively using their LMS primarily to supplement face-to-face classroom instruction, creating a 24/7 learning environment for students, grades 9–12. This percentage has steadily risen over the past 4 years and is expected to rise further thanks to the current success of teachers who regularly use their LMS to support classroom instruction. The district offers 1233 courses through its LMS, with the majority being what the district calls blended learning courses, or courses that integrate both face-to-face and online instruction. Their current course portfolio includes 37 courses that are primarily online and encompasses independent study courses for Advanced Placement and University of California approved college prep classes. Students also have the option of taking credit recovery courses online.

Latteri notes, “We have built all our own courses and that’s resulted in much better buy-in from our faculty because our content is locally relevant. Our teachers trust their colleagues who have been part of our course development to understand our specific local conditions and needs.” She explained that her district’s use of their LMS capabilities offers direct and important benefits for students, saying, “Our district is student-focused and our LMS supports that vision. We’ve found that for students who sit in the back of the classroom and never raise their hands, our LMS and its communications and collaboration tools allow them to have a discourse with students and teachers through discussion boards. Conversely, the students who feel the need to be class clowns or those who have some hyperactivity can focus on learning and don’t constantly have to entertain or be the center of attention. Whether they’re working at home or in a school computer lab, library or other in-school learning environment, they tend to be more engaged by the technology-based tools and learning resources. Students who have difficulty concentrating or focusing can get up and move around or take a short break to alleviate stress and then go back to work. If students were to move around like that in a traditional classroom setting, it might be disruptive.
to the class and the teacher.” That’s just one example that underscores Roseville’s use of its LMS to help personalize instruction.

Latteri also commented on the many ways in which the district’s LMS enhances and extends instruction. She emphasized the flexibility of allowing students to return to instructional content as often as needed to relearn and review in a non-threatening environment. “With the LMS, we can offer students multiple representations of the same content and students can reread the materials at the pace that is most suited to their needs. In the classroom, you get a 55 or 90 minute shot at learning. This way, students can reread at the time that’s best for them. Every secondary school educator knows that teenagers are not very good at learning at 8 or 9 in the morning. They may learn better at night.”

Roseville is actively using their LMS to support credit recovery initiatives as well, with students accessing the LMS for concept pre-tests. According to Latteri, teachers developing the credit recovery courses (four new ones were added in the 2009–10 school year) have experienced changes and improvements in their own teaching practices as a direct result of creating online courses. She explained that students are also learning how to be successful in an online course. The success rates for the credit recovery courses have steadily increased from the time Roseville first started credit recovery courses.

Additionally, Latteri made special mention of their LMS’s power to enrich instructional experiences for students and their teachers, saying, “The way we deliver courses online is different than the way you would in a face-to-face lecture. Our teachers add graphics, text boxes, and wraparound materials so lecture materials more closely resemble a medium (the Internet) with which students are familiar. And this is the medium in which students are most comfortable for learning, so they seek out this environment. Why wouldn’t we address more and more of the content in the same medium in which they feel most comfortable?”

In summary, Latteri points out, “Our online courses are really rich and our students have driven the change. After they have taken a course, they want more. The courses are rigorous and they require students...”

“Our use of the LMS is changing the concept of where, when, and how learning takes place. The LMS is a change-agent and an enabling technology. It is transforming education.”

Rob Leo, Model Schools Coordinator, with Onondaga-Cortland-Madison BOCES, New York
to apply themselves. There are a number of students who need accelerated learning and the LMS has given us the ability to meet their needs as well. I also find that it’s helped us eliminate wasted school time for students. Their learning time is more focused and undisturbed and we can expand learning time if needed.”

**Answering Teachers’ Needs in Roseville—A Critical Component of Success**

“Our teachers are using the LMS more and more frequently for formative assessments, making sure that student activities are appropriate for the individual needs of each learner.” Latteri also noted that teachers are collaborating more effectively as well, stating, “We’re seeing teachers share materials, with three or four teachers using the same course. Now they can do collaborative work not only in their own classrooms, but across classes.”

According to Latteri, teachers are using the LMS in ever-expanding ways, including:

• Posting links to website resources and uploading additional reading materials

• Posting compressed interactive whiteboard lessons, assignments, and slides used in classroom presentations

• Posting videos that support learning concepts

• Creating discussion boards where students can explore ideas and collaborate

• Posting formative assessments on daily lessons or major concept and then posting responses to students individually based on results and then re-testing to make sure students have mastered the work

Latteri also pointed out that language arts teachers are giving students audio feedback on their papers which provides a richer form of feedback and response. She said, “The biggest improvement is that learning is no longer contained to the classroom and students are working in a medium in which they are very comfortable. Lectures are becoming more visual and students appreciate the visually modified versions.”
On the professional development front, the LMS has become the hub for a growing number of professional learning communities and it has played a key role in helping teachers prepare to take the California Teacher of English Learners (CTEL) exam and to prepare for the Cross-Cultural Language and Academic Development (CLAD) training required in California. The district also uses their LMS to support the Beginning Teachers Support and Assessment (BTSA) initiative. And interestingly, in Latteri’s school, faculty meetings are also held on the LMS. The district’s LMS has also fueled other innovation, supporting a cooperative program in which teachers receive training on helping students prepare for entrance exams in English and Math, which are required for entrance to both community colleges and state universities.

**Blended Learning Improves Student Success**

Dan Lake, Systems Consultant, and Rob Leo, Model Schools Coordinator, with Onodaga-Cortland-Madison BOCES have a unique view into the power and potential of online blended learning. Their agency supports the work of 26 school districts in the area near Syracuse, New York. Said Lake, “We are actively transforming the present learning environment, with the recognition that change can come from within this environment, so that it is still a process managed by teachers.”

According to Lake, their focus is blended learning to support traditional classroom experiences. He noted, “Teachers can take the more difficult math content, use interactive whiteboard captures with video and narration, and then post the resource for anytime student viewing. Students can also capture their whiteboard work and submit that presentation for assessment.” Additionally, many of their participating districts use wikis as authentic learning activities, measuring student participation.

Lake also described their approach to providing a managed learning environment saying, “We connect the classroom into the world, protecting students while still giving resources to teachers. Student safety is a very important aspect to consider.” Lake emphasizes the role of the BOCES-hosted LMS, pointing out that, “Our LMS has given our management team a set of tools to put into the classroom, so that we can deliver 24-hour learning opportunities. This changes the nature of some of the teachers’ work. A teacher often posts her resources on the LMS and uses those same materials in the whole class teaching environment. It’s a benefit for students as well, because they can use these resources any time and they don’t have to concentrate on taking notes. We consider this ability to present information seamlessly as an important part of the transformation”.

Lake’s colleague, Rob Leo also noted some additional and substantive improvements in the classroom learning experience. “We’re seeing teachers’ roles changing because there are more resources and better access to them and that improves direct instruction.”
Among the changes Leo has observed are:

- Students interact with each other through a wiki, collaborating and reviewing others’ work. Students benefit because they learn the group skills needed in new dispersed working environments.

- Students are interacting with content differently when they can access it as many times as they need and see multiple representations of concepts.

- Discussion boards have the power to extend the class period. Teachers post discussion prompts and we’ve seen that when student work is published and available in a more public forum, they are more careful with their representation.

- Digital content that is part of a textbook program is posted on the LMS so students are not carrying heavy books and some no longer need paper. They’re taking notes in a wiki and this gives teachers the opportunity to assess individual student’s contributions.

- Content delivery is changing from text to media and this is often more meaningful because it changes the way educators engage and motivate students. Content is available in multiple formats and students can use multiple tools and resources to represent their growing knowledge.

**Students and Teachers Benefit Simultaneously**

Both Dan Lake and Rob Leo observed that the use of LMS across the 26 districts they serve has benefitted both teachers and students. Students have valuable experiences using a system they’ll encounter in their college careers and they learn to create a network of peers. Teachers are collaborating more effectively and are finding resources and tools to help them personalize instruction efficiently and effectively. Said Rob Leo, “Our use of the LMS is changing the concept of where, when, and how learning takes place. The LMS is a change-agent and an enabling technology. It is transforming education. Teachers are becoming managers of learning beyond the classroom period and students are benefitting from more meaningful homework that is better managed to achieve authentic outcomes.”
Classroom Learning Transformed

Whether schools, districts, multi-district service agencies, or statewide entities use the capabilities of LMS for blended learning, totally online courses, professional development, community outreach, or for a combination of purposes, improvement at the point of instruction is ‘the point.’ As the examples here show, when students have school-based access to the tools and technologies that are now part of their home lives and their futures, they’re more engaged and productive learners. When teachers can use these same tools to personalize instruction, and assess student performance more rapidly and strategically, instruction improves and students achieve more. And when these resources are used to enhance teacher learning, competence with technology, and subject-area expertise, their professional experiences improve and that also supports better learning opportunities for their students.

As we’ve seen in the examples here, transformation is in progress and students, parents, and educators alike are gaining in important ways. Learning is improving. Classrooms are more engaging and more supportive of authentic learning. In part, it’s due to a classroom that uses technology fully. It’s a learning environment in which students, teachers, and parents have access to the content, tools, training, information, and support they need to create and enhance learning relevance and efficacy all with the goal of improving achievement outcomes for every student. As educator Bill Sheskey said, “It is the greatest time in history to be in a classroom...”

References


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Blackboard Inc. is a global leader in education technology that transforms the experience of millions of students and teachers every day. Blackboard works with states, K-12 districts and virtual schools to expend educational opportunities, create collaborative learning communities and increase engagement for students, teachers, parents and administrators. With Blackboard, educators are closing the gap between the way students live and the way they learn through personalized, connected learning experiences that meet the needs of the K-12 classroom and the 21st century. Learn more at http://www.blackboard.com/k12.