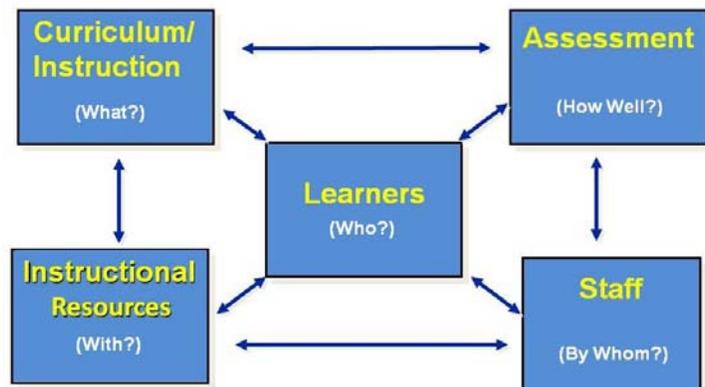


## Instructional Improvement/Learning Management System Overview

Educators today are increasingly focused on tracking and analyzing data that links students, standards, assessment data, and learning facilitators. As in any profession, the right tools can enhance effectiveness and productivity. In education, access to just-in-time information about who we teach (learners), what we teach (curriculum/instruction), what we teach with (instructional resources), how well students are learning (assessment), and by whom (staff) is essential if our schools are to realize the full impact of technology.

In recent years, a variety of systems have emerged to support various aspects of instruction using student assessment data aligned to performance standards. With names like instructional improvement systems (IIS), learning management systems (LMS), curriculum development systems (CDS), content management systems (CMS), course management systems (CMS), and instructional management systems (IMS), the acronyms form a veritable alphabet soup. The systems range in focus from student assessment data, to unit and lesson planning, to online course delivery.

Technology that helps educators to develop curriculum, deliver instruction, manage learning, and provide assessments is found in a multidimensional instructional improvement system — a web-enabled relational database that links together curriculum/instruction, assessment strategies, instructional resources, student data, and staff resources, as illustrated in the figure at right.



Instructional improvement/learning management systems (IIS/LMS) should help educators correlate student assessment data to standards-based performance measures. An LMS does just that: educators create, access, and manage banks of test items, as well as catalogue and use other evaluation methodologies (e.g., holistic scoring, teacher observable assessment, portfolio/authentic assessment, etc.), to assess desired student proficiencies.

With an instructional improvement system, teachers can articulate learning goals and standards as they relate to selected curricula and instructional programs. They can correlate instructional resources, such as textbooks, podcasts, video, e-books, manipulatives, and Internet resources, to specific learning activities. They can also add a comprehensive description about the use of such materials. Teachers can document, record, and electronically share classroom lessons that have proven successful in achieving specific student performances. The correlation of measurable results to instructional resources shifts the emphasis away from a curriculum dictated and limited by the textbook to one encouraging inquiry and the development of lifelong learning skills.

An IIS/LMS also helps school district personnel manage their most important and expensive resource — their staff. The alignment of staff proficiencies with learner needs, correlated to staff development programs with required staff proficiencies and specializations, is essential to high-performing and results-oriented learning organizations.

With an IIS/LMS, all members of the learning community have a comprehensive and secure management system that allows the flow of information on demand among the many people who must work together to ensure the success of each student. It is not merely a software program,

but rather a critical organizational resource that enables staff to work cooperatively, collaboratively, and interdependently in order to enhance learning, increase productivity, and improve accountability.

Providing access to learning information from the home (via telephone, cell phone, e-mail, Internet access, Web TV, handheld device, etc.) enhances the communication between teachers and parents. This can lead students, parents, and community members to participate more effectively in the learning process. The widespread use of an IIS/LMS can make parents, and the community in general, more aware of the value of the technology investments made by their school board and administrators. It can encourage the community to back future initiatives to data systems in support of education reform and enhanced learning.

In summary, an IIS/LMS is a mission-critical technology solution that:

- correlates state/district curriculum standards to instructional programs and assessment strategies
- provides test item banks for generating formative assessment tools
- generates accurate and timely information in order to improve student achievement
- enables teachers to identify and support students at risk and provide differentiated instruction to meet their diverse learning styles
- identifies gaps in instructional programs such as adequacy of instructional resources, assessment items, and/or staff proficiencies
- links staff development programs and supervision/evaluation activities with student learning
- empowers staff to work cooperatively, collaboratively, and interdependently in order to increase student achievement, enhance productivity, and improve accountability
- permits students to assume an active role and accept responsibility for their educational experience
- enables parents and community members to participate more fully in the learning process

Using an IIS/LMS, educators, students, and parents are provided with a comprehensive profiles of learner performance for the duration of a student's enrollment in a classroom course, and/or school. Such a continuum of integrated information can assist both teachers and administrators in evaluating the effectiveness of curriculum/instruction linked to student performance, thereby allowing educators to make informed decisions concerning necessary curricular and pedagogical modifications.

### **About the Center for Educational Leadership and Technology (CELT)**

For nearly two decades, CELT has helped align leadership, learning, and technology in support of improved student achievement by working collaboratively with educational organizations to support and transform teaching, learning, and administrative processes. CELT is one of the largest and most comprehensive providers of research, planning, and implementation services for public/private schools, education service agencies, and departments of education. CELT's purpose is to help learning organizations attain their vision, mission, and goals by integrating high-quality programs, services, and technology with the organization's people and processes in a timely, efficient, and cost-effective way.