



Supporting Online Delivery of Standards-Based Courses

Online delivery of rigorous, standards-based courses provides the flexibility to meet the needs of students in a variety of different circumstances—from those at risk to accelerated learners, and all those in between. As long as students have Internet access, they can complete courses on their own time, at their own pace, and at a location convenient to them—anytime, anywhere.

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Real learning. Real results.™

Online courses were offered by 31 percent of public school districts in 2003–04. Of the districts offering distance learning, over 70 percent reported plans to expand virtual opportunities for their students, in both school year and summer programs.

QED What Schools Are Using:
2004-2005 Educational Market
Share Data.

The Need to Deliver Courses Online

A renewed focus on high school reform has put increased pressure on schools to better prepare students for post-secondary education and the workplace. Of primary importance is ensuring that secondary students graduate from high school and not settle for a GED, yet requirements for obtaining a diploma have increased, placing more students “at-risk.” Schools need to provide additional instructional opportunities to help at-risk students receive credit, acquire core skills, and ultimately achieve graduation. Many schools are turning to credit recovery, remediation summer school, and distance learning programs to meet this need.

Online learning programs facilitate a range of instruction, from remedial to AP, and help small schools and districts offer courses they would often be unable to provide without distance learning. These programs help districts provide rigorous, state-aligned instruction via the Internet to home-schooled students, home-bound and accelerated learners, and those whose personal or work schedules conflict with the normal school day.

In addition to solving instructional challenges, online courses can help districts overcome fiscal problems associated with difficult-to-serve students. When students drop out of school or look to private providers for their instruction, the district’s per-pupil federal funding leaves with those students. By providing credit recovery programs to reach at-risk learners and credit accrual programs for distance learning programs for home-bound, home-schooled, or non-traditional students, districts can positively impact both student achievement and their fiscal budgets.

Online delivery of rigorous, standards-based courses provides the flexibility to meet the needs of students in a variety of different circumstances—from those at risk to accelerated learners, and all those in between. As long as students have Internet access, they can complete courses on their own time, at their own pace, and at a location convenient to them—anytime, anywhere.

Introducing PLATO® Courses

PLATO Courses provide a rigorous, whole-course solution for granting credit in an online, alternative learning environment. These self-paced, semester-long courses (60–75 hours of instruction), with optional exemptive assessments, allow students to rapidly complete courses, recover credits, accrue credits, and progress to graduation. Aligned to national standards with state standards coverage reports available, PLATO Courses provide engaging instruction that matches the rigor of traditional classroom instruction.

PLATO Learning offers a variety of standards-based courses for middle- and high school with interactive content, pre- and post-course assessments, supplemental web-based and offline activities, and teacher support materials. PLATO Courses are designed to support districts, schools, and special programs in providing standards-based, customizable online instruction that meets the needs of students in a variety of intervention, credit-accrual, and distance learning programs.

PLATO Courses are semester-length curricula in the core middle school and high school content areas of English, mathematics; science, and social studies¹. The Courses are structured in a modular learning format, with multiple assessments that support a flexible, self-paced learning environment. The implementation of PLATO Courses is enhanced with Teacher Support Materials, Course editing and customization capabilities, and multiple reporting options.

Common circumstances for implementing PLATO Courses include:

- Remediation and intervention programs
- Credit recovery programs
- Summer school programs
- Before- and after-school programs
- Saturday and night school programs
- Alternative education programs

Credit Accrual/First-Time Credit

- Accelerated learning and advanced placement
- Gifted and talented programs
- Independent study programs
- Students in need of more flexible course scheduling (e.g., because they seek to take multiple electives)

“PLATO is a tremendous tool for all levels of learners. Our high-level students go online to take advanced courses...others use it as a remediation tool to improve skill sets and reduce failure rates. Failure is not an option at Delano High School, but we know that not every student learns optimally in the classroom. PLATO provides a new way to reach students, and both students and teachers are now experiencing success. This has transfigured the attitude at Delano High School. People are now happy to be here.”

Bruce Locklear, principal,
Delano High School, Delano,
Minnesota

¹ As of July 2006: Algebra 1 A/B, Algebra 2 A/B, Biology A/B, Physical Science A/B, Chemistry A/B, Life Science A/B, English 7 A/B, English 8 A/B, English 9 A/B, English 10 A/B, Geography A/B, and American History 1 A/B. The following Courses will be released in October 2006: American History 2 A/B, Basic American History 1 A/B, Basic American History 2 A/B, and U.S. Government A/B. Additional Courses available in January 2007: Geometry A/B, English 11 A/B, and English 12 A/B.

Distance Learning Programs

- Home-school and home-bound student services
- Virtual high school programs
- Regional or multi-district consortium programs serving students who may not have access to these courses within their own school due to size or budget constraints

At the core of each PLATO Course is PLATO Learning's award-winning instructional content supplemented with offline and web-based activities. PLATO Courses enable and empower student learning in a self-paced, independent environment with:

- Self-pacing structure that allows students to "skip" content they already know and understand;
- Features included in the Course that support different learning modalities, support multiple-reading levels, and provide an engaging and focused structure to keep students on track;
- Real-world examples illustrating key points;
- An easy-to-follow sequence summarizing key points; and
- Formatting and navigation features that enable student-directed learning.

PLATO Courses were designed by examining state standards in each core subject area that were awarded an "A" rating for overall quality by the Fordham Foundation, then developing instructional sequences that covered the content and reflected the structure of those standards. These instructional sequences provide systematic and complete instruction for semester length courses. Each includes:

- PLATO Learning's award-winning, interactive instructional content
- Unit pretests, module mastery tests, unit post-tests, and an end-of-semester cumulative test
- Supplemental, standards-aligned web-based and offline activities designed to provide reinforcement, review, and extension of the Course material

Teacher Support Materials:

- Unit summaries and activity matrices
- Pacing guide
- Scope and sequence
- Offline activities and answer keys
- Extension activities
- Unit post-tests, answer sheets, answer keys
- End-of-semester test, answer sheet, answer key
- Grade book

Each PLATO Course is designed to follow a rigorous instructional sequence. Unit pretests allow students the opportunity to exempt out of content which they have already mastered, and only work within those learning modules that will assist them with filling their knowledge or skill gaps. The module mastery tests ensure that student learning keeps pace with the presentation of content. Summative unit post-tests and the end-of-semester cumulative tests validate that students have mastered the rigorous academic content.

Districts, schools, and teachers can use PLATO Courses as an “off-the shelf” solution, or they can customize and supplement the Courses in several ways when implemented on the PLATO Learning Environment™ (PLE™):

- Teachers may re-sequence the units, modules, and instructional activities within the Course.
- Teachers can add resources to customize the PLATO Courses. These additions can consist of interactive instructional resources from other PLATO content titles that have been licensed by the local school or district, or they can be local resources that have been added to the PLATO Learning Environment.
- Teachers can assign additional individual learning activities as needed to one or more of their students.

When delivered via PLE, PLATO Courses also offer a number of reporting options including:

- Progress reports
- Usage reports
- AYP reports

“Teachers were concerned it would be an easy way out—that the students would have to do less work, and it would not be as rigorous. Once I showed them the curriculum, they changed their minds.”

Elvin Bell, program facilitator,
Memphis City Schools,
Memphis, Tennessee

Assessment Features

PLATO Learning provides specific resources for diagnostic, formative, and summative assessment that support delivery of standards-based online courses. The assessments are flexible and can be used in part or in whole depending on the intended implementation.

- Unit pretests exempt students from content within the unit that they already know. If they already have mastered all the content in the unit, they are moved on to the next unit, allowing for individualized instruction.
- Results from module mastery tests embedded within each activity provide accurate, detailed formative assessment information on how well students are learning the knowledge objectives covered by course material.
- Unit post-tests measure how well students have learned and can apply the content of the unit. Unless schools or teachers choose otherwise, students who fail to demonstrate mastery of the content on these assessments are required to review the unit, then retake and pass the unit post-test before moving on to the next unit within the Course.
- The end-of-semester test, which is taken offline in a proctored environment, provides a summative assessment of how well students have learned and can apply the content of the Course. These assessments require students to utilize higher order, critical-thinking skills to validate their mastery of the major concepts and skills addressed in the Course content.

Monitoring and Guiding Student Progress

Depending on the nature of the program, teachers and program supervisors may have a wide range of responsibilities for monitoring and guiding student work. Continuous data tracking empowers administrators for proactive decision making by giving them real-time measures of academic progress. PLATO Learning provides several tools to support program administrators and teachers in carrying out these functions.

Learner status monitor. The learner status monitor reports on student performance within a specific PLATO Course by displaying the components of the Course and status information on each component, including:

- Whether a Course component has been completed, started, or not started
- Whether a Course component has been mastered
- If a student is exempt from completing the component
- Time that the student has spent on task for each component

Student performance reports. Information on student performance in the PLATO Courses can also be requested through a variety of reports that are available on PLE. Reports typically include student results, the date students completed the item, their time-on-task, and summary information on modules within a designated unit. Unlike conventional data systems, which impose a retrospective view, providing information on the past, PLE enables administrators to find out what’s actually happening in the classroom today. Teachers and program administrators view student performance in real time and can identify if students are moving through the Course without difficulty, or they may want to intervene if they find a student has not mastered module learning with multiple tries.

AYP reports. The PLATO Learning Environment allows instructors to disaggregate student test data and generate AYP reports based on a single demographic variable or paired variables, such as ethnicity, gender, migrant status, special needs status, and socio-economic status. In addition, PLE can generate reports in a variety of computer formats and produce year-over-year comparative reports to document student achievement.

Options for adjusting instruction. Based on the information gained by monitoring student progress, teachers and program administrators can adjust instruction in several ways to meet students’ ongoing needs:

- Students can be required to retake modules within a PLATO Course.
- For students progressing quickly and requiring further challenge, additional activities can be assigned as a supplement to the PLATO Course, including extension activities, PLATO content titles, and added local resources based on a search of standards-aligned interactive instructional resources from the PLATO Learning Environment.
- For those students who are not progressing through the Course successfully or are struggling with a particular concept, part or all of another PLATO instructional sequence from licensed PLATO content titles or added local resources can be assigned to provide additional practice or skills remediation for implementations on PLE.

“Four years ago we had 18–21 percent of our students failing classes. With PLATO they have become engaged, recovered credits, and our failure rate is now at 1.6 percent, which is pretty unbelievable in my book.”

Bruce Locklear, principal,
Delano High School, Delano,
Minnesota

“As long as they have access to technology, the students have access to a real learning experience, whether at the center or at home. Many students are now accessing PLATO instruction outside of the regular learning day.”

Ollie Fields Thacker, teacher and technology coordinator, NY New Beginnings Program, New York

Student Interface

The student interface includes several features that are particularly useful in supporting delivery of online Courses by providing flexibility to meet student needs.

- **Availability.** PLATO Courses can be accessed anytime, anywhere by students with Internet access, providing important flexibility to students in completing online Courses.
- **Progress tracking.** Students can access a list of PLATO Courses in which they are enrolled. This allows students to track where they are in relation to their total assigned activities. Students can see what they’ve been assigned, and how much work has been completed.
- **Menu access.** Students are guided through a sequence of modules. Modules in the PLATO Courses are listed in an order that makes sense instructionally, with each unit and module providing the foundational skills on which the next instructional steps are built.

Tailoring Instruction to Local Program Needs

Online instruction can be tailored in a variety of ways to match local program requirements.

Customizing Courses

Before assigning a PLATO Course to students, a district, school, or teacher can tailor it within PLE by:

- Re-sequencing or deleting items
- Adding activities and instructional resources, including interactive instructional resources from licensed PLATO content titles and/or resources that have been added locally to the PLATO Learning Environment
- Unit post-tests and end-of-semester tests can be edited to reflect edits made to the PLATO Course content.

Other Content Resources

PLATO Learning provides a wealth of other resources that can be used to support the customization of PLATO Courses. The PLATO content titles provide access to an extensive range of interactive instructional content, correlated to national and state standards. Additionally, teachers are able to search the PLATO Learning Index™ based on topics, key words, or state standards to find additional standards-aligned resources—such as textbooks and Internet URLs—that can be included in a complete program of instruction. These additional content resources can be added to the PLATO Courses and can range from a single activity to a complete instructional sequence for implementations on PLE.

Adding and Sharing Local Resources

In some cases, district, school, program administrators, or teachers may have identified resources that are particularly well suited to the instructional goals of a specific program. Such resources can be added to the PLATO Learning Environment, then incorporated into the PLATO Courses or assigned as separate activities to students.

Specific examples of types of resources that can be added to PLE include:

- Links to URLs, textbook lessons, and multimedia resources with instructions to students on what to do at the associated web pages or resources.
- Documents and worksheets for students to read online or print as offline homework activities.

Identifying Resources That Match Specific Needs

Districts, schools, and teachers can use two methods within PLE to identify appropriate resources from PLATO instructional content titles licensed by the school or district that match specific needs and program requirements:

- Explore a hierarchy of state standards, select standards that correspond to instructional goals, and then view resources that have been correlated to the standard.
- Conduct a search based on topics, key words, or state standards.

Items identified through these methods can be added to a PLATO Course.

How Does PLATO Learning Support Online Delivery of Standards-Based Courses?

PLATO Courses are designed to support districts, schools, and special programs in providing standards-based, customizable online instruction that meets the needs of students in a variety of circumstances. This section describes possible steps in a process of using PLATO Courses as resources for online learning, followed by a description of specific planning and professional development services that can support delivery of standards-driven online Courses.

Steps in the Process

The following description provides one example of how PLATO Courses and related resources can be utilized as part of a process of delivering standards-driven online Courses. Specifics of the process vary widely from school to school and district to district, depending on the goals of the instructional program.

1. Set goals. District and program leaders discuss and determine the program vision and expectations, identifying goals and measurable outcomes to align the PLATO Courses program to the district's or site's efforts to improve student achievement. Frameworks for goals and initial curriculum planning will vary, depending on the specific type of program in place or desired and what student population the program will serve at the school or district. For example:

- In the case of credit recovery programs in place to reduce drop-out rates and improve graduation rates, the need for online instruction will typically correspond to the core subject areas of reading, mathematics, science and social studies for grades 9–12. Courses are also available for grades 7–8.
- In the case of gifted/talented programs, mainstream, or Advanced Placement programs, the need for online instruction may relate to specific Courses on which students would like first-time credit accrual.
- In all cases, the school or district must first clearly identify its goals for online instruction, then review PLATO Courses to see how they correspond to these goals. Curriculum Coverage Reports for each PLATO Course identify how the instructional content matches specific state and national standards.

2. Design instruction as needed. PLATO Courses are designed to be used “out-of-the-box.” However, should a site so choose, customization is possible through the PLATO Learning Environment. The district or site may review the scope and sequence of the PLATO Course along with the correlations report for their state and determine if and what types of modifications they wish to make to award credit for each PLATO Course that will be implemented. PLATO Courses may be edited in PLE as follows:

- Individual modules in a PLATO Course may be re-sequenced or deleted.
- Offline activities and Web-based activities can be re-sequenced or deleted.
- Individual modules from PLATO content titles already licensed by the school may be added to a PLATO Course.
- Locally developed resources meeting PLATO Learning Environment format requirements may be added to a PLATO Course.
- Unit post-tests and end-of-semester tests can be altered by the teacher to reflect any edits made to the PLATO Course content.

3. Assign instruction. Based on set goals, instructional setting, and target student population, a teacher or program administrator will assign students or groups of students into a PLATO Courses for either first-time credit accrual or credit recovery. Teachers have the option of assigning individual learners the unit pretests within PLATO Courses so that the student can exempt out of those modules the student has already mastered, thus creating an individualized, self-paced program. This is especially important for those students in a credit recovery program where schools may want students to move through only those objectives on which they have not already demonstrated mastery.

4. Monitor and guide student learning. Teachers or program supervisors can review student progress on PLATO Courses through the student performance reports and Learner Status Monitor, which reports student performance on activities within the Course. Based on this information, educators provide support and adjust instruction as appropriate to help ensure student success in meeting program goals.

5. Measure student learning. End-of-semester tests, taken offline in a proctored environment, provide a summative evaluation of student learning within the Course. Results of this test, as well as performance on offline activities, web-based activities, and unit post-tests, are used to determine student accomplishments, assign letter grades or pass-fail status, grant credit, and guide further instructional planning as appropriate.

6. Reporting. Teachers and administrators have many reporting options available to them through the PLATO Learning Environment.

The types of reports needed will be dependent upon the implementation type and student population being served. Reports available in PLE allow administrators and teachers to view activity reports, daily usage reports, individual and class progress reports and mastery reports, providing real-time, ongoing feedback necessary to guide and individualize instruction. PLE will also disaggregate student test data for AYP reports based on single or paired demographic variable, as well as produce comparative reports to document longitudinal student achievement data.

Planning and Professional Services

Successful program implementation requires more than technical, skills-based knowledge on how to “make the system work.” Instead, it must include planning and rethinking how instruction is carried out—including professional development focused on effective instructional management strategies to support online learning.

PLATO® Professional Services can be purchased by the district or site to maximize the deployment of PLATO Courses. These services may include any of the following sessions based on the district and/or site’s needs:

- Implementation and Evaluation Planning, including identifying students to be served, identifying staff and responsibilities, determining initial program goals and criteria for success, discussing curriculum requirements set by district/state, determining breadth of Course revisions, and discussing placement strategies.
- Course Management Design, support including creation of a Course management plan to be used by staff within the school outlining the needed staffing, targeted students, enrollment process, scheduling, instructional setting, student performance requirements, and grading policies.
- Product Training—Instructional Content, which is designed to help program staff and teachers understand the key steps for program success, build knowledge, and develop confidence using PLATO Courses. This training will cover identification of Course components, navigating successfully through a given Course, discussing assessments, and Course completion requirements. Finally, staff will learn how and where to seek support when needed.

- **Product Training—Management System**, will build knowledge and develop confidence using the PLATO Learning Environment. This session will be spent reviewing the structure of Course learning paths; locating teacher resources; making student assignments; monitoring and updating student performance records; and reading reports to monitor student progress. This session will also focus on how to use the Courses grading tool to calculate final end-of-semester grades.
- **Course Implementation Support**, will help ensure successful initiation of Courses. During this session, participating faculty have the opportunity to discuss implementation progress and challenges, address implementation and curriculum issues, analyze reports, and determine individual student progress. Faculty will develop personal action plans to address challenges and establish a peer review support structure.
- **Program Review and Planning**, conducted with the district/site leadership team and focuses on gathering the data necessary to create a program implementation summary. During this session, participants will discuss implementation outcomes, identify implementation challenges, and outline improvement steps. This is also the opportunity to discuss adjustments to Course structures and plan the next Course implementation.

These services are provided with a goal not only of getting the system “up and running,” but also of increasing teacher and program effectiveness by providing multiple learning opportunities for teachers and program administrators, with a focus on theory, demonstration, practice with feedback, mentoring, and collegial support.

Conclusion

Districts and schools are responsible for assisting students at risk of dropping out or not graduating on time. They are also looking for additional means to reach out to home-schoolers, home-bound students, and accelerated learners. Further, they have a mind towards generating revenue beyond their brick and mortar environment.

Online delivery of rigorous, standards-based courses provides the flexibility to meet the needs of students in a variety of different circumstances—from those at risk, to accelerated learners, and all those in between. As long as students have Internet access, they can complete PLATO Courses on their own time, at their own pace, and at a location convenient to them—anytime, anywhere. Customizable online standards-based courses from PLATO Learning are a powerful tool for supporting flexible instruction and expanding educational options for teachers and learners. PLATO Learning resources and tools will help districts, schools, and special programs develop and deliver effective online instruction.



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