A Study of Best Practices in Edmentum ™ Online Solutions

A summary of an authoritative third-party study from the Marzano Research Laboratory
While significant research exists regarding effective instructional strategies in the traditional classroom setting, there is a marked lack of research examining the impact of strategies on student academic outcomes in an online learning environment. Using the Marzano Instructional Model as its basis, the Marzano Research Laboratory (MRL) undertook an evaluation of the relationship between student learning and effective pedagogical teaching practices to identify best practices in online instruction. The MRL synthesizes Dr. Robert Marzano’s scope of educational research — world renowned for its breadth and depth — into accessible components teachers and principals can use for concrete gains in student learning. Continuous action research ensures MRL strategies are always at the forefront of best practice. MRL consistently analyzes what works in schools and classrooms and always presents research that reflects the current knowledge base of best practice for enhancing student achievement.

**Our Mission**
To provide the best research, the most useful actions, and the highest level of services to educators.

**Our Vision**
To continuously develop tools that translate high quality educational research into practical applications educators can put to immediate use.

**Our Goal**
To be the place educators go for the latest information and data, synthesized into clear, concise resources that facilitate immediate action.
Higher teacher engagement = Higher student achievement

The study found that teacher engagement—as measured by the amount of time teachers were logged into Plato Courseware and the number of times they logged in —was the strongest predictor of higher levels of student achievement. The program equips educators and empowers learners to meet their shared goal of improved learner achievement.
Best Practices in Online Learning

Marzano Dimension: Strategies involving routine events
1. Communicating course/assignment rules and procedures
2. Providing students with all materials needed to complete an assignment
3. Clearly presenting the goal/objective for each assignment
4. Offering encouragement and positive feedback to students
5. Allowing students to keep track of their learning progress
6. Accessibility to students via electronic communication as well as face-to-face

Marzano Dimension: Strategies enacted on the spot
7. Monitoring student work
8. Knowing every student by name and being able to recognize them outside of the online environment
9. Allowing students to progress through assignments at their own pace
10. Providing help to understand and practice new knowledge
11. Allowing students to ask questions during online course/assignment
12. Treating all students equally

Marzano Dimension: Strategies addressing content
13. Adding external resources to assignments aligned to local objectives

These 13 instructional strategies and behaviors identified in the study were found to be significantly related to higher levels of student achievement in the online learning environment. These practical behaviors can help teachers effectively engage in an online environment.
Communicate course/assignment rules and procedures

Strategies

• Provide clear course policies and procedures at the beginning of the course/assignment.
• Provide clear information about the timeline for the course, including all assignments, assessments, and course activities.
• Provide clear information about methods of instructor-to-student communication and about all student course support resources.
• Ensure that all students have directions, resources, and a working understanding of how to navigate and successfully operate all student systems within the online learning environment prior to engagement with the course content.
Provide students with all materials needed to complete an assignment

Strategies
• Provide multiple learning resources with engaging and meaningful learning activities.
• Provide clear and complete instructions (how to proceed, assignment requirements, and assessment expectations) with rubrics for all activities.
• Provide information about student course support resources.
Clearly present the goal/objective for each assignment

Strategies

- Provide or reinforce clearly stated course goals and learning objectives for each major concept within the course.

💡 Implementation Tip:

Plato Courseware includes a built-in messaging feature, or email system from which teachers can discuss progress and share learning goals with students.
Offer encouragement and positive feedback to students

Strategies

• Begin interacting with students early in a course to affirm each student’s successful participation.
• Provide timely, supportive, individualized, and frequent feedback on student progress that emphasizes the intended learning outcome.
• Analyze a student’s mastery level of standards content and provide additional instruction to help the student meet mastery level.
Allow students to keep track of their learning progress

**Strategies**

- Provide resources that allow students to self-monitor their academic progress throughout the course.
- Provide timely and meaningful feedback on assignments, assessments, and related course learning activities, allowing students to be continuously aware of their progress in the course.
Access to students via electronic communication as well as face-to-face

**Strategies**

- Facilitate meaningful and timely communications.

**Implementation Tip:**

Clearly review procedures, rules, and expectations prior to beginning a new course or assignments.
Monitor student work

**Strategies**

- Closely monitor individual student data to guide instruction and provide intervention activities for unsuccessful learners.
- Identify and monitor course assessments that correlate to state high-stakes tests to assure mastery of those key concepts and provide additional learning experiences when needed.
- Facilitate meaningful and timely communications.
Know every student by name and being able to recognize them outside of the online environment

Strategies

- Communicate with each student prior to, or early in a course to answer any questions and to build a supportive instructor-to-student relationship.
- Provide a supportive and engaging learning community environment for all students.

Implementation Tip:
Plato Courseware provides customization options that create the optimal combination of online, blended, or face-to-face learning to meet unique needs and goals.
Allow students to progress through assignments at their own pace

Strategies

- Ensure that the curriculum is at the correct level for students and has appropriate rigor.
- Provide multiple learning pathways based on student ability to achieve content mastery.
- Provide ample assessment styles throughout the course to monitor student mastery of content and provide remedial instruction when needed.

Implementation Tip:
Plato Courseware consist of integrated assessments; including exemptive pretests that allow learners to forgo content they have already mastered and focus on the concepts that need additional work.
Provide help to understand and practice new knowledge

Strategies

• Provide synchronous learning activities in large and small learning groups to support key concepts within the course content.
• Provide multiple opportunities for students to be actively engaged in content that includes meaningful and authentic learning experiences, such as collaborative learning groups, student-led review sessions, instructional games, analyses, discussions, case studies, etc.
• Provide a wide range of activities, assignments, assessments, and resources to allow students to demonstrate mastery of content.
• Provide high-level thinking and critical reasoning activities in increasing complexity throughout a course.
Allow students to ask questions during online course/assignment

Strategies

- Foster teacher-student and student-to-student interaction.
- Ensure students have accessibility through various communication methods.

💡 Implementation Tip:

Plato Courseware is collaborative and allows educators and learners to connect through online discussions, electronic drop boxes, class announcements, and emails.
Treat all students equally

Strategies

• Provide multiple learning resources with engaging and meaningful learning activities to all students.

Implementation Tip:

Plato Courseware’s media-rich resources like tutorials, activities, and videos provides all students multiple learning opportunities.
Add external resources to assignments aligned to local objectives

Strategies

• Adapt the course content to meet students’ needs by providing additional assignments, resources, and activities for remediation or enrichment during the course experience.
• Assure that course content, assignments, and assessments are of appropriate rigor and aligned to state standards.
• Augment, as needed, course content, learning activities, and assessments to meet all required standards within a course.
Primary Outcome

Implementation of these instructional practices and strategies in the online learning environment is associated with higher levels of student achievement. Teachers who use the features and characteristics of Plato Courseware frequently engage in instructional strategies that have been found to positively impact student academic outcomes. The study found that teacher engagement—as measured by the number of times teachers logged into the system and the amount of time spent in the system—was the strongest predictor of higher levels of student achievement. Said another way, student learning in the online environment increases when teachers are actively involved and engaged in the process. Plato Courseware provides teachers with tools and features that have significant, positive effects on increased levels of student learning. The more educators engage with Plato Courseware, the more students benefit. The graph illustrates that correlation.
Summary

In the past, the process of learning was often viewed as a largely passive experience in which knowledge is received and stored for future use. Over the past 20 years, however, cognitive research has led to theories and paradigms that reflect a more active model of knowledge acquisition. Similarly, one of the criticisms levied against online learning has been that with the teacher removed from the direct instruction, the role of the educator is transformed into that of a passive observer. Results from this study provide resounding evidence to the contrary, as teacher engagement in the online learning process was found to have the strongest relationship to student achievement outcomes.

The 13 best practices outlined in this eBook provide a framework to help teachers ensure engaging online interactions.

- Communicating course/assignment rules and procedures
- Providing students with all materials needed to complete an assignment
- Clearly presenting the goal/objective for each assignment
- Offering encouragement and positive feedback to students
- Allowing students to keep track of their learning progress
- Accessibility to students via electronic communication as well as face-to-face
- Monitoring student work
- Knowing every student by name and being able to recognize them outside of the online environment
- Allowing students to progress through assignments at their own pace
- Providing help to understand and practice new knowledge
- Allowing students to ask questions during online course/assignment
- Treating all students equally
- Adding external resources to assignments aligned to local objectives
The design of Plato Courseware provides students with a comprehensive instructional experience. Students are presented with a variety of learning activities that begin with the presentation of new knowledge and skill, followed by the ability to practice new knowledge and concepts to gain facility and a deeper understanding of the instructional content and by the opportunity to apply new knowledge and skills in real-world situations.

— Marzano Research Laboratory