

Edulastic Learning Science

A look at the evidence, behavior, and practices that inform the development of Edulastic solutions

Edulastic helps educators put every student on their path to success with effective formative and summative assessments, access to instant data-driven insights, and standards mastery tracking. With a holistic view of student progress, Edulastic enables educators to propel each student with personalized, data-informed learning support.

Logic Model

GoGuardian's Education Team has developed a logic model for the Edulastic assessment platform to illustrate how Edulastic's features are designed to positively impact student academic achievement outcomes. The logic model was designed to satisfy Level IV requirements (Demonstrates a Rationale) according to the Every Student Succeeds Act (ESSA)¹.

How to read the logic model

Inputs: The logic model begins by identifying optimal assessment practices;

Activities: Then, the model identifies how Edulastic implements those assessment practices;

Outcomes: Finally, we identify the results of implementing ideal assessment practices.

Based on the framework, if the implementation of program activities is successful, we can expect the following outcomes:

- An increase in school efficacy as a result of utilizing impactful formative assessment and evaluation strategies to support data-driven decision making at the district, school, and classroom level
- Improved learning gains and quality of educational experiences as a result of differentiated learning experiences
- Improved equitable learning outcomes as a result of detailed insight into the need for differentiated academic supports
- Improved student self-efficacy and academic confidence as a result of an increased locus of control driven by student-facing feedback

1. Moss, P.A., Pullin, D., Gee, J. P., & Haertel, E. H. (2005) The idea of testing: Psychometric and sociocultural perspectives. *Measurement: Interdisciplinary Research and Perspectives*, 3, 63-83. doi.10.1207/s15366359mea0302_1

Explore Edulastic's logic model on the following page and visit www.edulastic.com to learn more.

Edulastic



Inputs

What do schools and educators do to achieve assessment goals?

Administer Formative Assessments to Prepare Students for Summative Assessments

In order to prepare for summative assessments, schools and educators must proactively and frequently evaluate where their students are at so they can make informed decisions on how to proceed.

Proactively Address Student Progress and Drive Mastery

To support student learning goals, schools and educators can regularly measure student progress and support their academic growth through use of frequent low-stakes practice assessments.

Support Student Persistence and Self-Efficacy

Putting the student at the center of their own learning journey is essential for individual learning growth. Schools and educators can serve this drive by providing students with the tools they need to be active participants in their learning.

Activities

How does Edulastic provide impactful formative assessment experiences for students and teachers?

Improved Performance Forecasting and Data-Driven Decision-Making

- Edulastic features certified standards-aligned content and progress reporting that allows educators to be aware of real-time trends in student performance to inform decisions about future instruction and preparation.
- The Edulastic content library hosts common formative assessments (CFA) that can be used to get district-wide insight into student performance.
- The Live Class Board, Insights reports, and premium Data Studio features give educators insight into the performance data they need to proactively decide what their classrooms need to reach their assessment and learning goals.

Design That Supports Regular Low-Stakes Assessment

- Edulastic features an extensive library of rigorous content to meet a variety of academic goals, whether preparing for state summative assessments, meeting mastery requirements for state standards, or simply getting additional practice across a large number of subject areas and skills.
- Educators can utilize Edulastic's wide range of tech-enhanced item types to easily adapt classroom content into digital assessments and support students' higher-order thinking by asking students to apply their knowledge in various ways.
- Edulastic's testing environment is highly customizable to meet classroom needs. Features such as the On-Screen Calculator, Timed Assignments, Hints, Partial-Credit, and Shuffle enable teachers to adapt the testing environment. Features such as text-to-speech, on-screen keyboard, text magnification, and highlighting make learning accessible for all students.

Granular Progress Monitoring and Item Tagging for Differentiated Instruction

- Edulastic's Live Class Board, Insights reporting, and premium Data Studio feature granular progress monitoring of student and class performance so educators can differentiate instructional support to suit students' unique needs.
- Edulastic progress monitoring tools allow educators to organize student performance data by performance band levels, mastery completion, and performance over time to allow for timely support and intervention for individual students.
- Edulastic items can be filtered by depth of knowledge, question type, and difficulty, allowing educators to create a unique experience for their students based on where they are in their learning journeys.

Student-Facing Feedback and Mastery Reporting

- Edulastic's student-facing reporting feature gives students insights into their academic performance and level of mastery by domain and standard, so they always know how they are performing and can have greater ownership over their learning progress.
- Through Edulastic's student dashboard, students can access teacher feedback on past assessments for reference and reflection as they move forward with their learning.

Outcomes

What does the research tell us about potential benefits of Edulastic when it is used to support effective instructional practices?

School Efficacy

The use of formative assessment and formative evaluation strategies has been shown to be an effective strategy for gathering widespread insight into student progress¹, assessing the quality of a learning procedure or program², and identifying areas to adjust instruction to support individual students³. Ultimately, research into formative assessment and progress monitoring techniques have found that the utilization of formative assessment and data-driven evaluation approach can result in more effective decisions being made across multiple areas within a school.⁴

Academic Achievement and Growth

- Effective use of formative assessment and evaluation strategies has been shown to have the potential to improve quality of education and create widespread improvements in school level performance⁴.
- Employing frequent low- or no-stakes practice experiences has been shown to result in significant learning gains over studying across ages, abilities, and discipline⁵.
- Research on utilization of progress monitoring for at-risk students has demonstrated that when teachers adjust instruction in response to progress monitoring measures for an individual student, they may see significant gains in academic achievement⁶.
- A study on the characteristics of classrooms that display higher than average persistence rates found that providing materials at appropriate levels of higher academic challenge was a common characteristic among the study's more effective classrooms⁷.
- Pairing practice testing with feedback on correct answer choices has been shown to be a robustly effective strategy for improved academic performance and growth⁵.

Equitable Learning

- A study looking at the effects of employing regular low-stakes formative and dynamic assessment strategies found that these low-stakes practice opportunities significantly decreased self-reported measures of test anxiety in EFL learners⁸.
- Similarly, another study found that administration of low-stakes formative assessments mediated female physics students' test anxiety by acting as an intervention for lower levels of self-efficacy, a result that has been observed across a number of disciplines and institutions⁹.
- Research has shown that progress monitoring is an effective way to direct teachers towards influential factors of student progress. Therefore, systematic progress monitoring is an effective method to bring attention to a potential concern in student progress, and to signal the need for additional or alternative instruction¹⁰.
- In a study concerned with re-engaging students at risk for failing or dropping out, it was found that classrooms that emphasized the delivery of timely and effective feedback and provided a structured and adaptable learning environment that met students' unique needs were more effective at cognitively re-engaging at-risk students¹¹.
- Additionally, this study found student-facing learning goals and progress monitoring was a common component in classrooms that were effectively able to re-engage at-risk students. By providing students with insight into how their behaviors and performance translates to outcomes, educators can increase students' locus of control and self-efficacy¹¹.

Student Self-Efficacy

- Higher rates of timely and effective feedback have been shown to result in increased levels of self-efficacy and self-reported feelings of competence in students¹².
- Feedback practices that build a healthy attribution of failure and success have been shown to improve student self-efficacy and increase students' locus of control, which translates to greater engagement and persistence in learning¹¹.

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