

EDUCATION GALAXY

Cultivating Success Through Best Practices



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Assessments Aligned to State Standards

In order to effectively prepare students for success on standardized tests, best practices in assessment emphasize the alignment of classroom assessments and benchmarks to state learning standards.¹ This practice stems from research, which indicates that students who are given periodic assessments aligned to state standards perform significantly better on standardized tests than students who do not receive aligned assessments.² However, learning standards can be very vague or broad and may provide no clear direction as to the depth of rigor with which they should be taught. For this reason, it can be understood that learning standards are ultimately defined by how they are assessed on state tests, and best practices emphatically suggest using state-released assessments as a tool to define learning standards and as a blueprint for building and evaluating formative and interim assessments.³ Additionally, local assessments that reflect the rigor and cognitive complexity of state tests yield more accurate and reliable performance data, as highlighted in the next section.

How Education Galaxy Incorporates Research-Based Practices

- *Provides assessment practice that content specialists have aligned with state-specific learning standards*
- *Includes assessment practice in formative, summative and interim form*
- *Designs each question to replicate the verbiage, rigor, and cognitive complexity of the available sample items from each state's standardized assessment*



¹ Webb (1997)

² Hannafin & Foshay (2008)

³ Bambrick-Santoyo (2010)

Data-Driven Decision Making



In addition to the experience they provide for students, aligned assessments also provide a tremendous amount of raw data which, when reported in a useful form,

schools can utilize to improve teaching and learning. In order to improve achievement, research suggests that teachers need to utilize performance data from aligned assessments to monitor how their students are progressing towards state standards and as a feedback tool to modify instruction.⁴ However, assessment data is all too often misinterpreted and misrepresented. To combat this issue, best practices suggest that student results be organized into reports for analysis on the question level, standard level, individual student level, and whole class level.⁵

How Education Galaxy Incorporates Research-Based Practices

- *Offers a comprehensive set of reporting tools that allows teachers and administrators to monitor student progress toward state expectations*
- *Collects performance data on a standards level, question level, class level, and individual student level*
- *Provides training on how reports can be used to make instructional modifications*

⁴ Hamilton, Halverson, Jackson, Mandinach, Supovitz, & Wayman (2009); Smith & O'Day (1990); Webb (1997)

⁵ Bambrick-Santoyo (2010)

Extrinsic Rewards and Intrinsic Motivation

The use of rewards as a motivation strategy in an educational setting has been a topic of debate for several decades and has accumulated a great deal of informative research. Behaviorists have evidence supporting the use of rewards as a proven method to increase student engagement and effort, while motivational theorists have evidence supporting that the use of extrinsic rewards can negatively impact intrinsic motivation and claim they are simply a means to control behavior. The arguments from both sides have led to more extensive research on the topic, which suggests that extrinsic rewards do not ineludibly undermine intrinsic motivation and may even be used to foster its development.⁶ Best practices emphasize that rewards are most effective when offered as incentives for meeting performance outcomes on skills that require a great deal of drill and practice, and the reward should be portrayed as an authentication of noteworthy and meaningful achievements.⁷

How Education Galaxy Incorporates Research-Based Practices

- *Motivates students to increase the intensity or amount of effort they put into solving problems by rewarding their accomplishments (i.e., students are rewarded with a short game when they answer a question correctly on the first attempt)*
- *Motivates students with symbolic representations of their worthwhile achievements as they continually progress through the program (i.e., students receive a galaxy star when they master a study topic, students increase their alien ranking by earning more galaxy stars)*

⁶ Covington (2000); Gehlbach & Roeser (2002); Lepper & Henderlong (2000)

⁷ Brophy (2013)

Feedback

One of the most generalizable research-based strategies that educators can utilize is to provide students with feedback on their performance.⁸ In fact, many experts consider feedback to be the single most powerful tool in enhancing student achievement. Studies on the general effects of feedback in testing situations have shown that the nature, timing, and specificity of feedback have significant implications on student achievement. For example, telling a student that he or she got a question right or wrong can negatively affect achievement. The most effective forms of feedback are corrective in nature, include explanations as to why a student response is incorrect, and are delivered immediately following a test-like situation. Additionally, achievement appears to be enhanced even further when students, having received corrective feedback, are encouraged to continue working on a task until they are successful.⁹

How Education Galaxy Incorporates Research-Based Practices

- *Provides immediate and question-specific video feedback for students when they answer a problem incorrectly*
- *Provides feedback that explains how to solve the problem correctly by modeling a problem solving process*
- *Provides feedback that guides students to the correct solution through questioning techniques*
- *Encourages students to correct any missed question(s) after viewing the corrective feedback*

⁸ Marzano, Pickering, & Pollock (2001).

⁹ Bangert-Downs, Kulik, Kulik, & Morgan (1991); Marzano, Pickering, & Pollock (2001)

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