Improve Student Outcomes

USING IMPACTFUL FORMATIVE ASSESSMENT

CERTICA

Get Started

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Primed for Assessment

INTRODUCTION

There are three types of common assessments used in the classroom: formative, interim and summative. While each type may be used to assess the same content or learning standards, the purpose that triggers the assessment is what sets them apart.

Why – not what – defines the assessment type.

- **Formative assessment** is used during instruction to check for student understanding and to inform and adjust classroom instruction accordingly.
- **Interim assessments** are administered periodically and used to measure growth against a goal and to prepare for summative assessment.
- **Summative assessments** are standardized and used to measure student performance against a learning standard.

A thoughtful approach to formative assessment can enhance your assessment program as well as your instruction, and in turn impact student outcomes.

Purposeful Intent

The landscape of formative assessment spans a broad spectrum of classroom application. Because it is defined by purpose rather than format, it can be applied in different ways. At the heart of formative assessment are these key purposes:

Help students identify their strengths and weaknesses and target areas that need work.

Help educators recognize where students are struggling and address problems immediately.

Successful Formative Assessments

- Focus on the needs of individual students in a classroom
- Offer immediate feedback for teachers and students
- Take place as a regular part of classroom life
- Help teachers & students understand learning in general and how these students learn in particular
- Help students assume responsibility for learning
- Describe growth as well as identify needs
- Point the way for immediate action

Avoid These Pitfalls!

- Delays that diminish usefulness
- Impeding classroom culture
- Hyperfocus on grades and scores
- Constraining students or teachers

Formative Assessment Strategies

There are many strategies available to teachers looking to integrate formative assessment into classroom practices. A few examples include:

- ✓ quizzes
- ✓ one question/one comment
- ✓ journal
- ✓ exit tickets
- ✓ yes/no chart
- ✓ survey
- ✓ think-pair-share
- ✓ hand signals
- ✓ concept map

Item Banks Can Help

Educators do not always have the time or resources necessary to create the content needed to implement a formative strategy with frequent and varied assessments. With an item bank, educators can access high-quality, reliable content that can be used in range of formative assessment activities in the classroom.

Navigate offers flexible, standards-based formative assessment items that can be used to guide instruction.

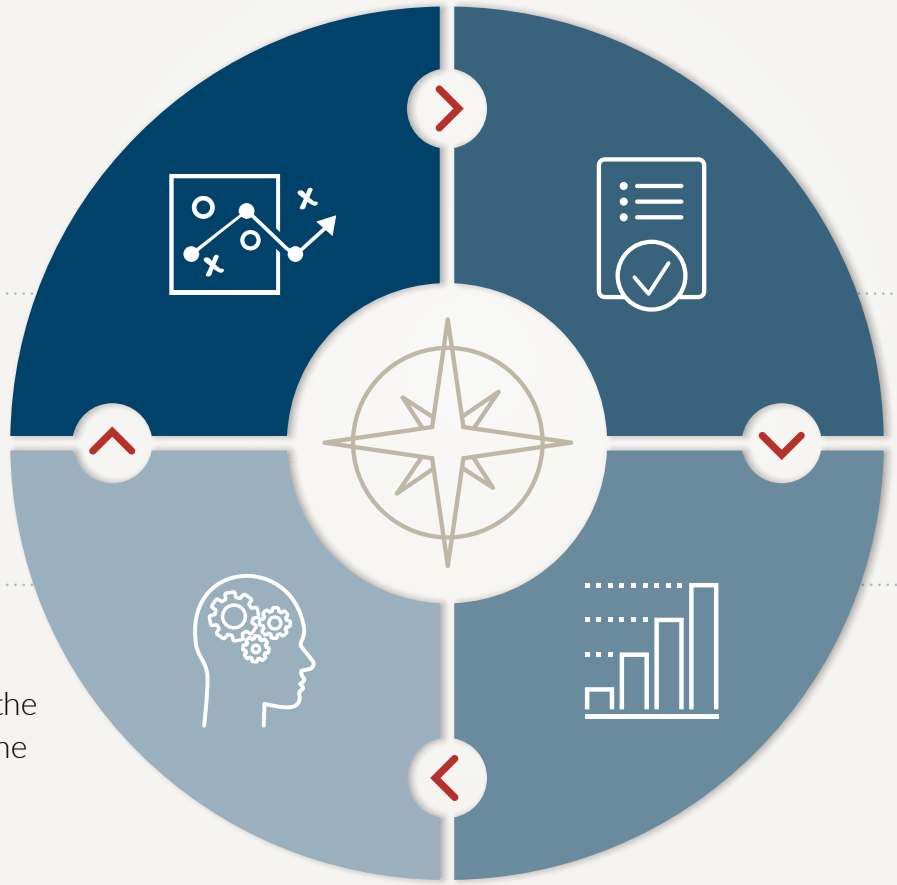
Formative Assessment Strategies

INTENT

Answer the questions:
What?, When? & How?

ACTION

Follow your intent to establish a plan. Choose the best technique.



REFLECT

What have you learned from the process and how will inform the next cycle?

ANALYSIS

What is the data telling you?
How will you adjust instruction?

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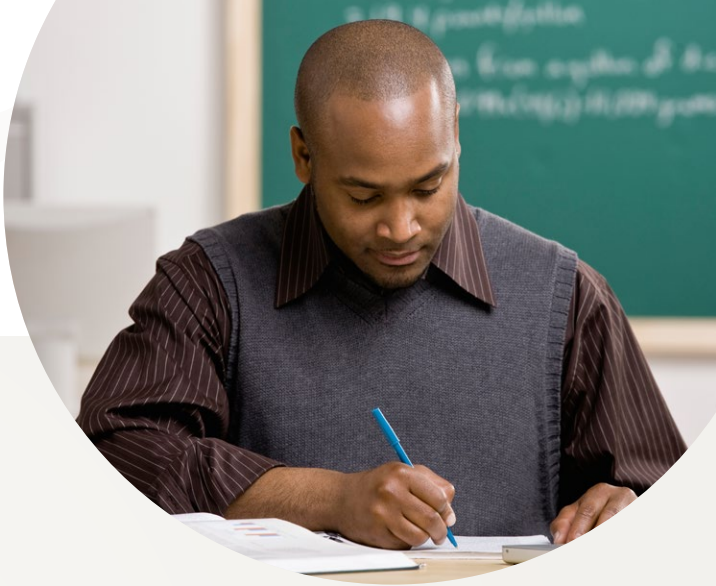
Attitudes That Impact Success



4 KEY ATTITUDES

There are four key attitudes that provide a foundation for achieving formative assessment success: Optimism, Ownership, Frugality and Curiosity.

Optimism

Let's start with Optimism, specifically, having a growth mindset.

John Hattie, a professor and researcher from Australia, conducts meta-analysis or "study of studies" to determine the impact of various factors that influence teaching and learning. His work answers the question, "Which studies back the most effective teaching and learning practices?"

Hattie's research shows us there is a data-driven reason for adopting a growth mindset with respect to formative assessment. According to Hattie's findings, very few things teachers do have a negative impact on students. In fact, only 3-5% of the practices employed in the classroom have negative or reverse effects on students.

The answer to "what works?" *Mostly everything*. But as professionals, we strive to determine what works best.

Ownership

Formative assessments provide an opportunity for students to take more responsibility for learning, and for teachers to use feedback to customize instruction. You are the expert on the students in your classroom, so your instinct should guide your formative assessment practice. Trust your judgement about what is going to be most impactful in your classroom.

Frugality

Formative assessments have a cost. Taking the time to assess students impacts a classroom's most valuable resources: instruction time, teachers' energy, and students' attention.

These resources should be invested only in formative assessments yielding the greatest return. Ask yourself which formative strategies and techniques will be most effective, and which have the biggest impact with the smallest use of classroom time.

Curiosity

School and district leadership, parents and the community all have an interest in the outcomes of assessment.

As a result of this, assessment can be fraught with political undertones and place heightened pressure and anxiety on teachers and students. However, it is important to remember that assessment is a powerful classroom practice that can lead to positive outcomes.

Instead of approaching assessment data with anxiety and seeking evidence of what isn't working, try to find ways to approach assessment data with curiosity. Ask yourself, what is surprising about these results? Why is it surprising? Did I ask the right question to begin with?

Approaching the analysis of assessment data with curiosity is more likely to lead to creativity and result in a positive assessment experience.

Intent

Start with clear answers to these questions.

What do I want to know?

The answer should be targeted and specific. For example: "Do my students know how to use semicolons?" or "Can they describe the difference between mass and weight?"

When am I going to use the information?

Now: analyze the data to make an immediate instructional adjustment.

Soon: choosing to make near-future adjustment to instruction allows the teacher to collect multiple data points, keeping in mind a bigger-picture instructional goal.

Just in time: make "last-chance instructional adjustment" before a graded performance or test with higher stakes. For example, a dress rehearsal formative test that replicates a state assessment.

Ideally, the answer should never be too far in the future. Keep frugality in mind; if you aren't going to use the data in the near term, then perhaps it's not the right time for that assessment.

How am I going to use the information?

- To make an immediate adjustment in a lesson
- To determine if remediation is necessary for a student/ group of students
- To decide whether to reteaching is necessary
- To understand if students are prepared for an end of year exam

At the intent phase you'll want to ask what do I want to know, when will I use the information and how will this impact instruction.

Action

“What am I going to do?”

The answer is influenced by the questions answered at the intent phase. Once you know what you need to accomplish, you can create an action plan.

CHOOSE THE RIGHT TECHNIQUE

There are many approaches to formative assessment. Frugality should influence the technique you choose. Select a format that is the simplest method to get the information you need – avoid increasing cognitive load without payoff.

Some examples include:

Direct observation: marking checklists, listening, noticing nonverbal signals like body language

Group collaborations: Round Robin charts

Quick captures of brief student responses: Quick Nod, Thumbs Up-Middle-Down, Chalkboard Splash, classroom polls, Twitter voting, One-Minute Papers

Student self-evaluation conversations: peer-to-peer in Think/Pair/Share, student-teacher conference

Quizzes: These may be (but don’t have to be) completed individually by each student

Analysis

Once intent has been identified, the most appropriate content has been selected and the assessment has been administered, it's time to analyze the data. Curiosity and ownership are essential attitudes that need to guide your approach to analysis.

Often when analyzing data, it's easy to make assumptions without realizing you're making them. If a student performs poorly on a math test, you could assume the student struggles with the concepts addressed on the test.

But what if the results mean something else? If the results seem "off" to you based on your expertise as an educator and your knowledge of your students, then pause.

> For example, if you administer an assessment and five typically high-performing students perform poorly, then you may want to analyze the content you used. Sometimes you may need to revisit your original intention: was the question you sought to answer the right one? Did you seek to answer one question, but the results seem to answer a different question? Do you need to make adjustments to what you thought you needed to know?

Reflection

After you've analyzed assessment results, you need to reflect on the entire process. Was your intent right, or does it need to be adjusted? Did you pick the right technique or content for the assessment, or should you try something else?

THE INFLUENCE OF FEEDBACK

John Hattie uses a "barometer of influence" to communicate how effective various practices are for learning. Each of these sections can be described as follows:

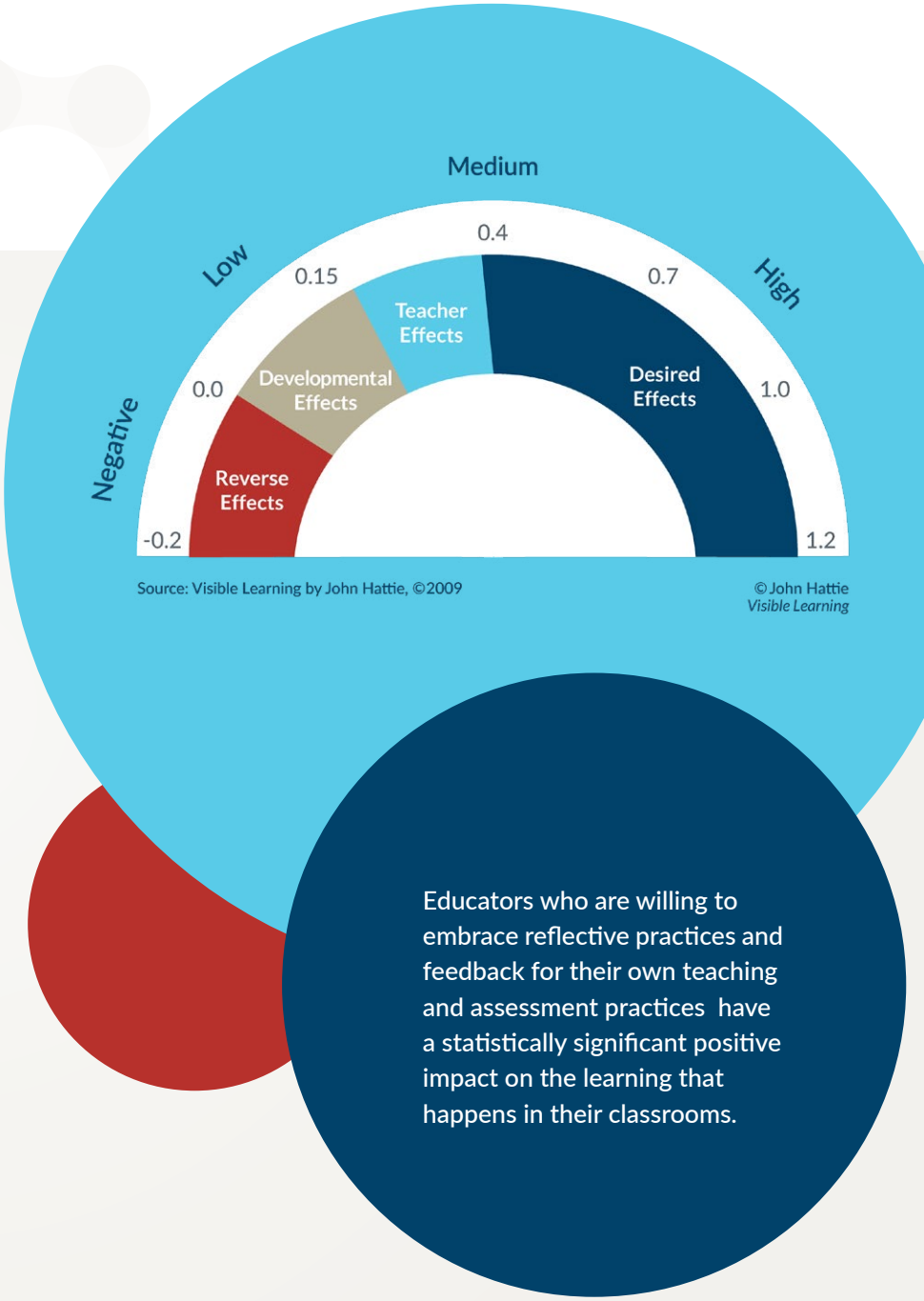
Reverse Effects: Negative effect on learning.

Developmental Effects: What a student would likely accomplish without instruction.

Teacher Effects: This is the "typical" zone – what would normally be accomplished in one year of school.

Desired Effects: This is the zone in which a practice has a statistically significant positive effect. Instead of answering the question "what works," practices in the blue zone are those which work best.

Hattie's research led him to develop the top ten teaching practices that have the most statistically significant impact on student learning. Two of the ten practices – asking questions to check for understanding and feedback – are directly related to formative assessment.



Educators who are willing to embrace reflective practices and feedback for their own teaching and assessment practices have a statistically significant positive impact on the learning that happens in their classrooms.

Reflection

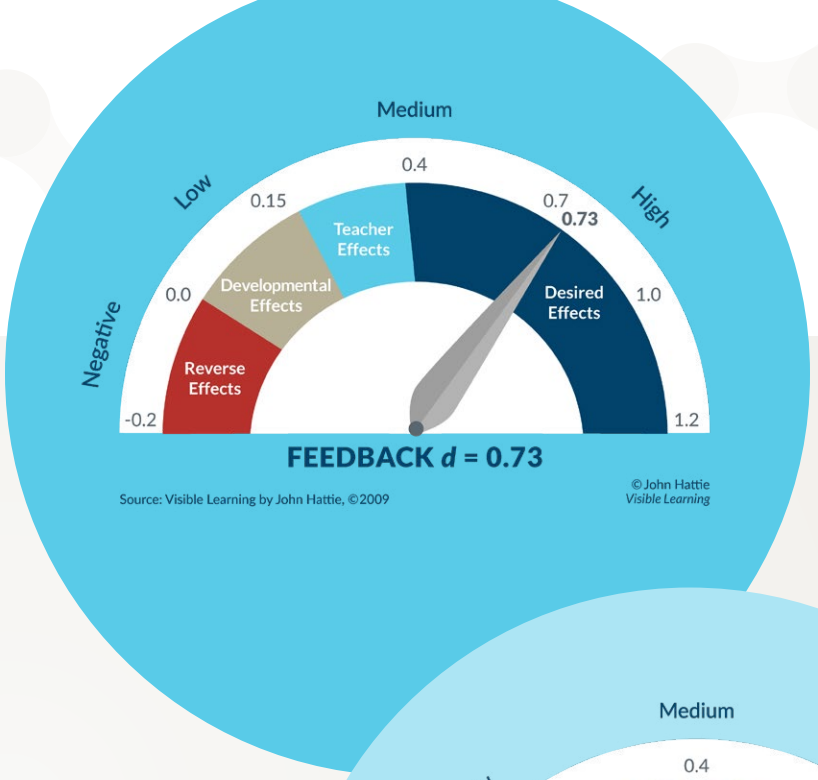
Receiving Feedback

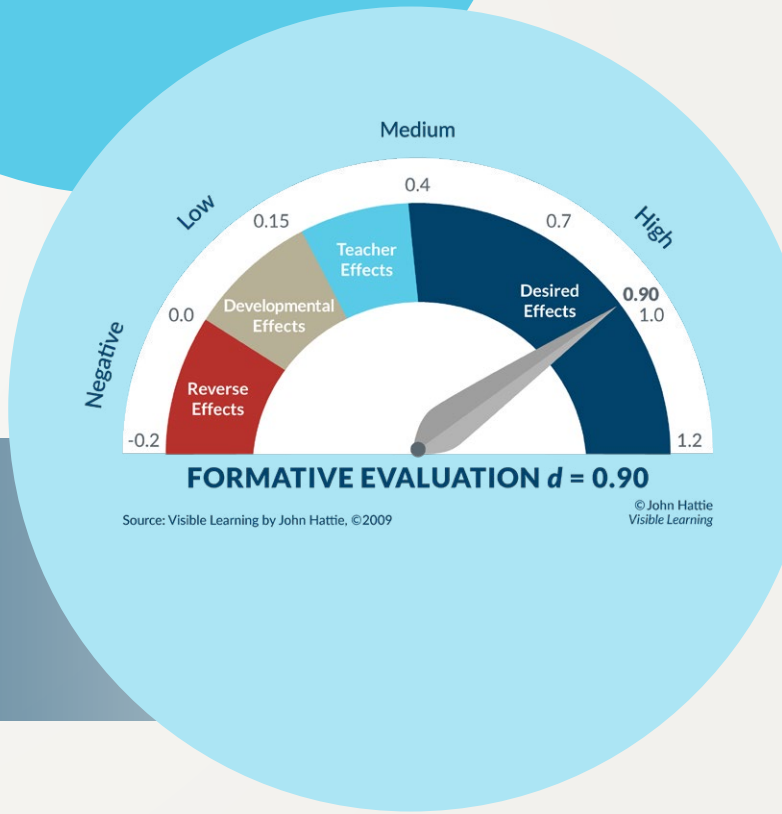
The act of receiving feedback from students is represented on Hattie's Barometer of Influence at 0.73. Formative assessment is the practice of eliciting feedback from students.

Formative Evaluation

Formative evaluation of your classroom practices has an effect of 0.9, even more powerful than feedback.

Let's put this into perspective – the difference between the impact of feedback and formative evaluation is like observing the height difference between someone that is 5'1" tall and someone who is 6'3".





> "When teachers seek, or are least open to, feedback from students as to what students know, what they understand, where they make errors, when they have misconceptions, when they are not engaged—teaching and learning can be synchronized and powerful."
>
> **JOHN HATTIE**

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Choose the Best Content

SIMPLIFY CONTENT SEARCH

Once you have identified the technique for your assessment and defined the content that is needed, you need to find the right content. There is an abundance of resources available that can be used for formative assessment. How can you sort through it to find the most appropriate content?

One way to do this tis o use metadata or tags to filter through the vast array of options.

Metadata, or data about data, is a critical component of assessment content. Metadata can help you focus in on the content that best helps you gather the information you need for your identified purpose.

Using Search Tags

Which pieces of metadata matter the most depends on your identified purpose and intended application of the data you will receive. Let's look at how you might filter a collection of items for a brief formative quiz.

> When evaluating how students are doing with a specific learning standard, standards alignment will be a very important piece of metadata to use for locating assessment content.

If you're wondering how prepared your students are for the end of year state summative assessment, you may want to ensure they have sufficient practice with the format of the summative test, making item type an important consideration in content selection.

Choose the Best Content

The format of a question can help determine students' mastery of various skills and concepts, so item type is an important piece of metadata when selecting content.

- Understanding sequences or steps in a process — ordered item type
- Use text evidence to support conclusion or inference — constructed response or multipart item type
- Use context clues to determine meaning of a word — hot text item type

If you are interested in determining how your students are handling rigorous content, metadata pertaining to cognitive complexity, including Bloom's Revised Taxonomy or Webb's Depth of Knowledge, would be important pieces of metadata to consider.

Keep the attitudes of formative assessment in mind at this stage, especially frugality. You are looking for the cleanest, simplest, and most efficient way to gather the data you need.

Choose the Best Content

USING PASSAGE METADATA

If you are creating an assessment with stimulus content such as a reading passage or a scenario for a science assessment, you will also want to consider metadata related to the stimulus. Metadata you should be considering includes:

- **Topics and Keywords:** these help you use metadata to match text to your audience.
- **Genre:** consider what students have been reading and how they respond to genres covered in class: which have they mastered, or which are a struggle?
- **Diversity:** the impact of topics that explore gender or ethnicity.
- **Word count:** consider students' reading stamina.
- **Formatting/Text Features:** be conscious of students' ability to navigate text features such as headings, bulleted lists, sidebars and footnotes.
- **Readability:** quantitative (Lexile Measure or Flesch-Kincaid) and qualitative measures of readability (text complexity).
- **Sensitivity:** avoid putting students in an emotional state during an assessment since it can skew assessment results.

Navigate items are developed to avoid sensitive topics. However, as the classroom expert, you know which content might trigger a response for your students.

For example, a passage about a dog would typically not be considered a sensitive topic, but if a student in your class had a pet with a medical emergency last week, you might choose to skip that passage for now.

Select High Quality Content

As you set out to build a test, you want to make sure to choose high quality items that will serve the intent of the assessment.

Look for Items with these traits:

- ✓ **Content validity:** The item measures exactly what it is intended to measure.
- ✓ **Appropriateness for the grade level:** The item is suitable for test-takers at the intended grade level in all aspects: content, readability, syntax, vocabulary, and demands on the test-taker in terms of developmental abilities and cognitive processes.
- ✓ **Solid framework:** The ideas in the item are organized; the item format is intentional and supports the content.
- ✓ **Sound premise:** The item addresses worthwhile content in a manner that is accurate and logical.
- ✓ **Clear focus:** The item presents a task that is readily understood by the test-taker, regardless of whether the test-taker possesses the targeted skill or knowledge.
- ✓ **Precise language:** The language used in the item is clear, brief and specific.
- ✓ **Fee from error:** An item with errors will lead to confusion and will not measure what you want to measure.

Select High Quality Content

USE PRE-DEFINED TESTS TO YOUR ADVANTAGE

Constructed from a thoughtful blueprint deigned by as subject matter expert

- ✓ Enough learning standards or skill coverage.
- ✓ Logical item order – understand how students approach a test when deciding on item order.
- ✓ An appropriate range of cognitive difficulty.
- ✓ Covers the depth and breadth of the stimulus content
- ✓ Provides scaffolded support.
- ✓ Avoid clueing and content overlap – the answer to question 2 should not inadvertently be in question 7.
- ✓ Correct answer balance, avoids answer patterns.
- ✓ Balanced with respect to topic, gender and ethnicity and should avoid unintentional themes.

Item banks and comprehensive curriculum packages offer pre-defined tests. These assets can be very useful components of your formative assessment program. Be sure to evaluate pre-defined tests through the same lens you would use to select high-quality items – take ownership and keep frugality in mind.

Avoid Roadblocks

When creating or selecting content, you want to avoid any stumbling blocks in the content. Assessment content should provide students with a fair opportunity to demonstrate knowledge or skills.

Roadblocks prevent you from getting a clear picture of where the student is in their learning.

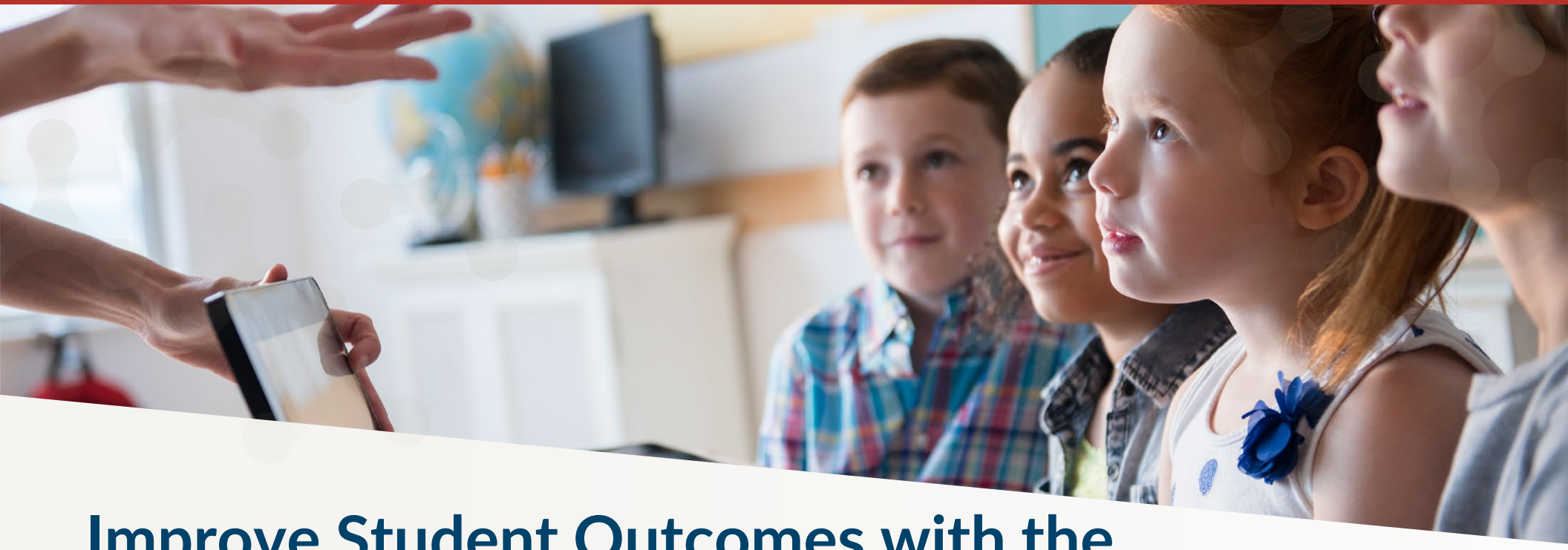
Assessment content should discriminate among students based on their knowledge of content or mastery of a skill. Anything that prevents a student from demonstrating mastery or knowledge should be avoided.

Unclear premise: Does the student know exactly what is expected of him/her?

Skills contamination: Is the content unintentionally measuring skills/knowledge unrelated to the target content?

Grade-appropriateness: Does the content use grade-appropriate vocabulary, syntax, and sentence structure?

Bias and sensitivity: Does the content discriminate among students in unintentional ways or provoke emotional reactions that could hinder a student's performance? An elevated emotional response can mask what a learner is capable of and should be avoided whenever possible.



Improve Student Outcomes with the Navigate Item Bank

The practice of formative assessment positively influences student outcomes. Equipped with a well-designed formative assessment program, educators csan evaluate the impact of lessons,design a blueprint for informing instruction in the classroom and ensure student success.

The Navigate Item Bank provides educators with 94,000 standards-based items and for classroom use to quickly measure student performance and guide instruction. Contact us at Sales@CerticaSolutions.com to learn more about our assessment solutions.

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