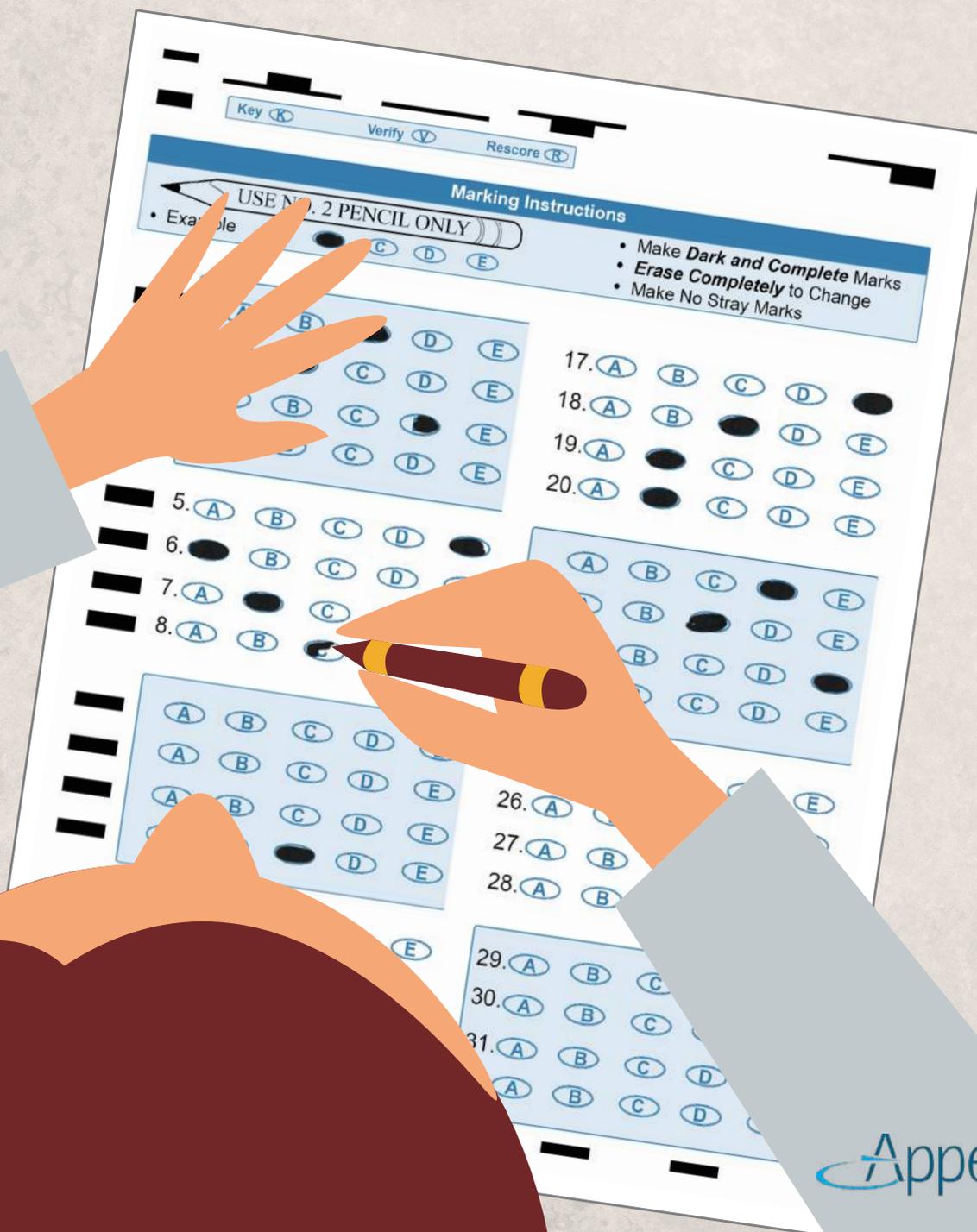


# WHY MULTIPLE CHOICE STILL WORKS AND HOW TO DO IT RIGHT

Your guide to creating relevant and effective multiple-choice questions for your students.



# Does Multiple Choice Still Have a Place in the Classroom?

**You have no doubt heard, maybe even expressed yourself, the disdain that some have for multiple-choice-assessments.**

But the truth is that in many cases, multiple-choice tests are not only a huge time-saver, but they also can offer more timely feedback and more trustworthy results.

Not the tired, old, basic recall questions where students are regurgitating information, but the ones that challenge students to apply the material in higher-order-thinking questions.

In this guide, you'll learn some helpful tips on how to create strong multiple-choice questions. On top of that, you'll hear from actual educators about how you can use data gleaned from these assessments to help your students succeed in the classroom.

**We hope you find this guide useful and inspiring.**

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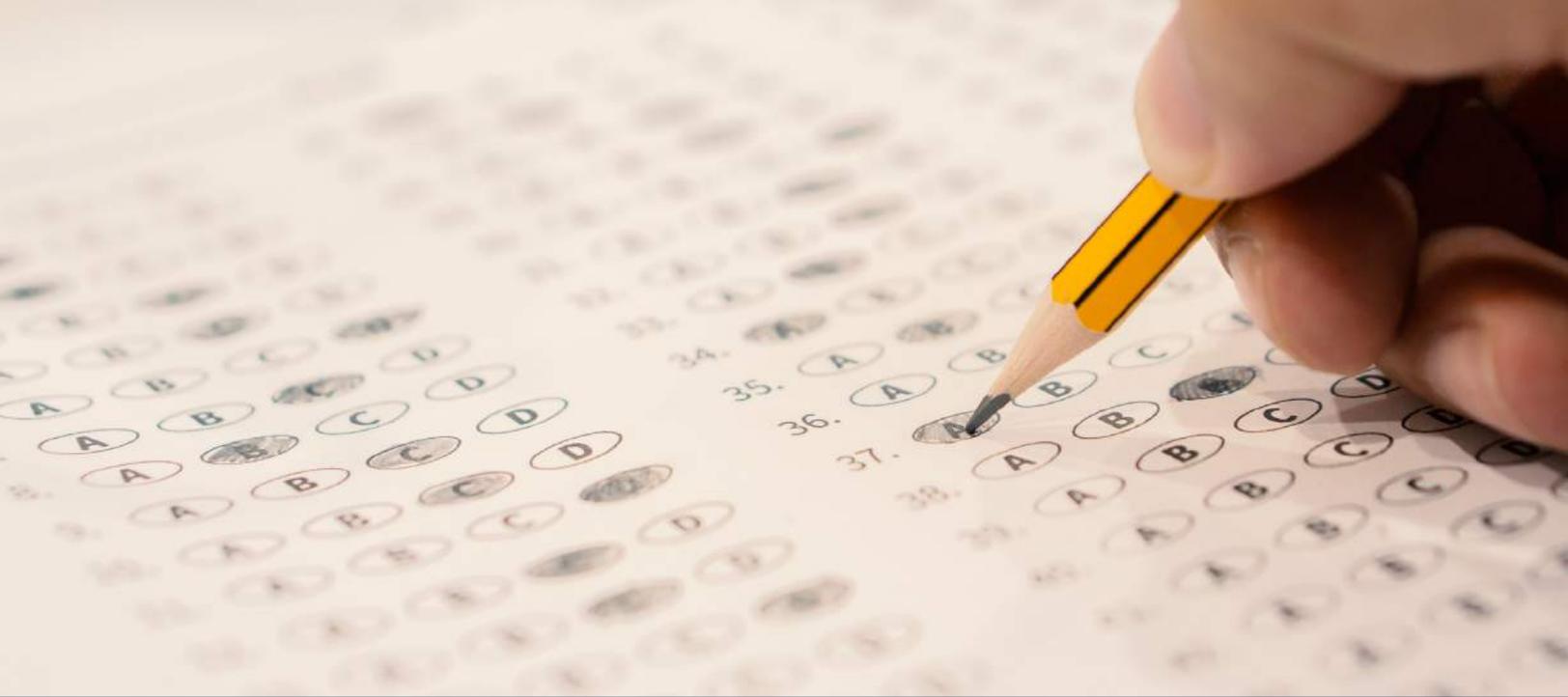
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## Why Multiple-Choice Tests Are Still One of the Best and Most Efficient Ways to Assess Students

**Time for a quiz! Read the following two questions from a psychology class assessment and choose which one assesses higher-order thinking:**

1. “Perhaps the stress of swimming aggravated an undetected physical disease (such as thyroid disorder) that interfered with Billy’s ability to control his behavior.” One would most likely hear this from a psychologist working from what perspective?
  - a. Biopsychological
  - b. Psychoanalytic
  - c. Humanistic
  - d. Behavioral
2. Which of these is NOT a psychological perspective?
  - a. Biopsychological
  - b. Psychoanalytic
  - c. Humanistic
  - d. Behavioral

**You probably chose the first question, but why?** Comparing the two, the second question is merely a rote memorization question that asks students to simply recall information. In the first question, however, students must analyze the information and then apply what they know to find the answer. Students are working much harder to prove their understanding. When used appropriately, multiple-choice tests (MCTs) are a quick and effective way to check for mastery in your classroom—but only if they are used correctly. The following are some of the major benefits of multiple-choice tests when they are utilized correctly.

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# Why Multiple-Choice Tests Are Still One of the Best and Most Efficient Ways to Assess Students

## MCTs can assess higher-order thinking.

The second question is found at the bottom of the Bloom's Taxonomy pyramid. It is the rote memorization level, which is okay to have some of on an assessment. More basic questions can help build confidence and better gauge the level of understanding the students

A teacher can differentiate question difficulty to see exactly where students are and then help them get to the next level.

This also aligns with some of the high-stakes tests. The SAT is a mixture of difficulty, so students should be given practice with that format. It uses multileveled questions to test for solving real-world

Science Standards, which ask students to develop key skills in inquiry, problem solving, and flexibility through all domains of science.

## MCTs ensure grading is consistent and fair.

In certain methods of assessment, there is room for subjectivity and human error. When comparing student work to rubrics, teachers become an important part of the grade, having to make subjective judgement calls. Ideally, a teacher would make the exact same decision every time, but when spread out grading over 100+ essays, there are bound to be discrepancies. It's too easy to mark down a student for a grammar concept or a misinterpreted idea and not do the same on another student's essay. MCTs eliminate any inconsistencies in grading as well as any unconscious bias that humans are prone to.



actually have. However, it's important to raise the challenge to the analyze/evaluate level for most MCTs, which is closer to the top of the pyramid. These questions assess higher-order thinking and really require a student's understanding.

contextual problems, analysis in science and social studies, data analysis in math, and command of evidence-based reading—all of which good MCTs help prep for. Moreover, science is seeing a huge push in these areas with the Next Generation

## MCTs give teachers back more time and energy.

One of the most time-consuming parts of being a teacher is grading. In a day with five, six, or seven classes, each bursting at the seams with 30 students a piece, a simple essay on a

# Why Multiple-Choice Tests Are Still One of the Best and Most Efficient Ways to Assess Students

test can add countless hours to a teacher's workload. Now that shouldn't deter teachers from ever using longer writing prompts; however, sometimes well-crafted multiple-choice questions can assess the same knowledge or skill. A teacher's time is valuable, and they should be investing as much of it as possible into helping students, not laboring over grading. MCTs allow teachers to quickly grade an assessment and get right back to teaching—or reteaching—

the material to support students. Additionally, some scanning methods come with software that offers everything from detailed standards proficiency reports to a simple (but enormously useful) item analysis including statistical analysis like point biserial and KR20.

Additionally, in situations where students need to retake a test, MCTs are very user friendly in that teachers can recreate questions by switching the answer of a question with a sentence stem.

## A Final Takeaway

These are a few of the major benefits that come from using MCTs. In the end, multiple-choice questions need to be about assessing deeper learning and critical knowledge. Depending on how they are crafted, MCTs can test students on their ability to memorize or on their capacity to think critically and solve problems. Read on for our tips on creating strong multiple-choice questions! ■

## Free Resources:

**Multiple-choice answer sheet samples**

<http://go.apperson.com/multiplechoice>



**White Paper: Empower Your Teaching and Your Students' Learning**

<https://www.apperson.com/lp/empower-your-teaching-and-your-students-learning>

**White Paper: How to Write Good Test Questions**

<https://www.apperson.com/lp/how-to-write-good-test-questions>

**Learn more**

<http://go.apperson.com/multiplechoice-scanners>



# Checklist

## How to Create Strong Multiple-Choice Questions

- **Don't make wrong answers obvious.** No need to use “throwaway choices” on assessments. The wonderful benefit of MCTs is that we can use the answer choices to increase the level of rigor. Use plausible distractors and choices that sound like they could be correct to push students to demonstrate mastery over the content.
- **Use common language.** Because the SAT, ACT, and AP tests are used so commonly for college admittance, it's important to use MCTs to prepare students for these high-stakes tests. Go through those standardized assessments and find common verbiage and question styles. Create a document that has these question stems and then plug them into your next MCT. See examples on page 8 of this guide.
- **Skip the fill in the blanks.** Avoid question stems that ask students to complete the sentence. Instead ask questions so students must actually determine what the correct answer is through a process of elimination.
- **Make sure multiple questions are used for each concept.** A huge benefit to MCTs is that you can ask multiple questions over any given concept. Feel free to hit on the same topic or term several different times to make sure students really know their stuff. At the same time, make sure one question doesn't help the student answer a later question.
- **Keep the answer choices similar in length.** A dead giveaway is when three of the options are short and then one selection is longer, and therefore more specific. These context clues help students “learn the test” rather than demonstrate their knowledge of the content.
- **Hit on all of the concepts covered.** In an essay format, you get limited questions and therefore can only cover a few concepts. In an MCT, you should provide questions from all of the material covered. Your tests can be deep and broad.
- **Assess, don't trick.** Make sure that the questions are not overly wordy or that you don't confuse your students with the questions. For example, if you must use a double negative, bold or capitalize the word not so students don't misread the question. There is enough test anxiety and pressure that we should be creating a fair assessment of students' knowledge.
- **Review your results!** Look for common areas of struggle and determine if there is an issue with the question itself or if the concept wasn't learned properly. This all comes back to making sure your test is reliable (consistency) and valid (measures what it's supposed to).
- **Make sure the correct answer is indisputable.** There is a fine line between making plausible distractors and ones that overlap with the actual answer. While higher-level thinking should be required, ensure that there is an indisputable best answer.
- **Occasionally lighten the mood!** Every once in a while, have some fun with a question or answer. Tests are nerve-racking enough, so take the edge off by throwing a smiley face next to one of the answers to help ease students. (I tend to put one on the last question so students end with a positive experience.) Or put your name into a question stem.



# How Using Instant Feedback Transformed My Teaching

## A STORY FROM A CLASSROOM

**It was in a social science class that we were covering defense mechanisms, a small portion of the content I needed to cover in that unit. I gave students an activity that asked them to define the words and then a second activity where they had to write scenarios and apply the terms correctly. There were 24 terms in total (meaning a lot of grading!).**

With all of my classes and the other topics we needed to cover, it took me several days to grade these assignments and assess my students' understanding. It was clear that many of the concepts were not fully mastered. However, by the time I learned this, we were scheduled to take the test on the unit. I tried to reteach the concepts the day before the test, but the students' misconceptions had already set in, and I could not undo them. The unit test did not go well at all, to say the least.

*Almost every one of my students failed.*

We have all been in this kind of situation, stuck between the ever-growing span of our curriculum and the "How do we get through all of this in one year!?" problem. Because of this, it's easy to lose sight of what's important and why we teach: to help our students learn and grow.

The following year I came to that same part of my curriculum, determined not to make the same mistake. I had students complete a short multiple-choice quiz on the definitions just to get some working knowledge of the terms. Then, instead of having students write out whole scenarios, I had them select between four choices. I had two questions for each of the 13 defense mechanisms they had to learn.



They did this part at the beginning of the class period, and I was able to grade their assignments instantly. By using data analysis, I pinpointed the terms that students were struggling with. I was able to reteach those terms without wasting time on the concepts students

# How Using Instant Feedback Transformed My Teaching

## A STORY FROM A CLASSROOM

demonstrated mastery of. I even had them do more work by assigning them to teach those terms to classmates via role-playing. Students had fun mastering all of the terms, I spent less time grading, and we were able to move on to the next concept more quickly because I knew exactly what they were struggling with.

It was a game-changer. All of my students did better on the unit test (most of them aced it) because they had a much better understanding of the material. It also increased my confidence as a teacher because I could physically see my students learn and grow.

### Research says ...

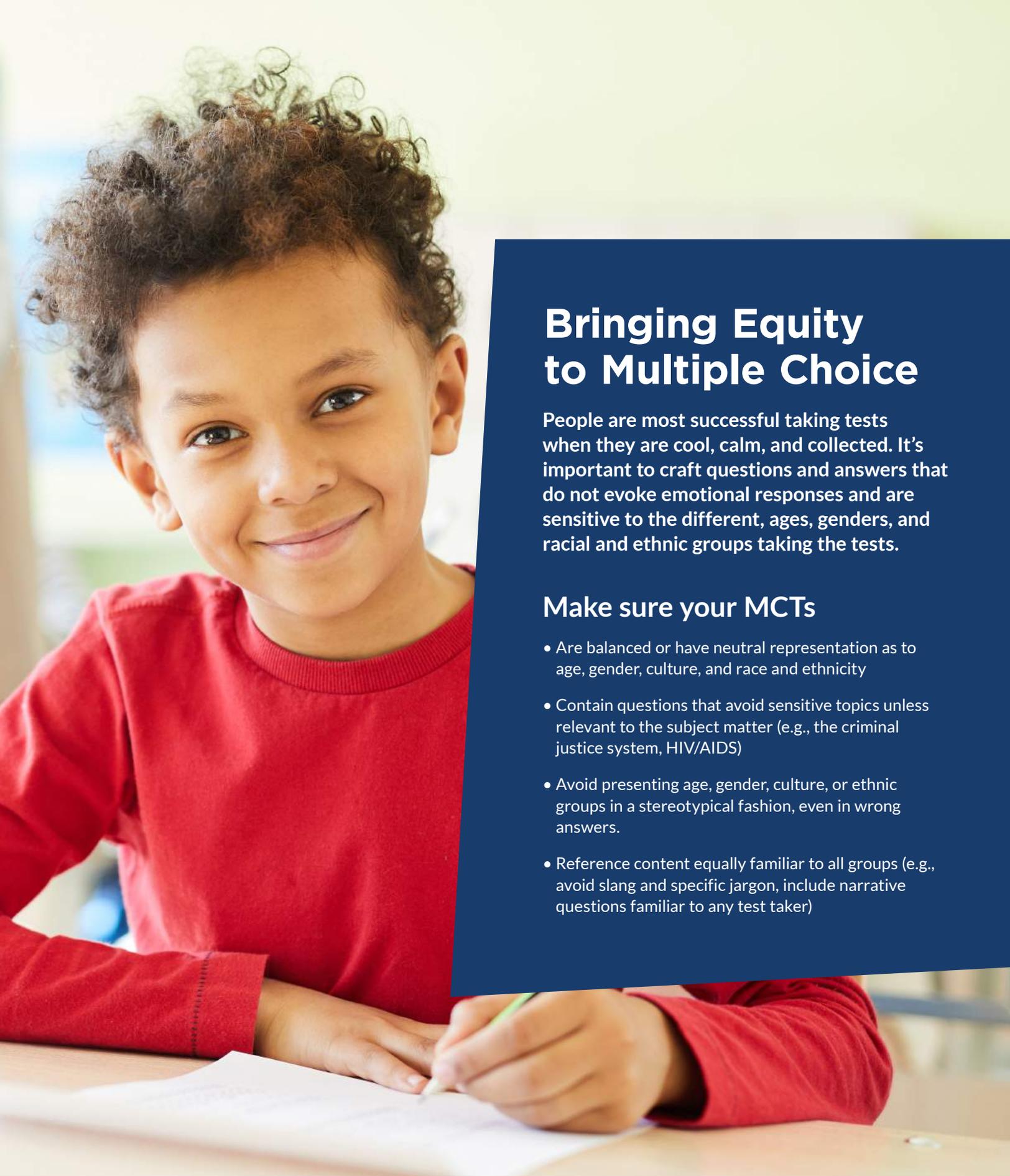
Quick, formative assessments have transformed how I teach and how my students learn. It's so easy to assume my students are understanding the material, but the only way to really know is to have them prove it. When they are unable to, this is a signal for me that I have to adapt my instruction.

And my class's success isn't just an anomaly. One of the most comprehensive studies ever on this subject found that the use of quality formative assessments closes the achievement gap by up to 50 percent (Dunn and Mulvenon, 2009). These researchers said that student gains impacted by formative assessment practices were "among the largest ever reported for educational interventions."

I'm not a researcher, but I am a teacher, and I can attest to that kind of dramatic impact in my own classroom. I find out where my students are in the learning process and don't move on until they demonstrate understanding. Since the epic fail during that one unit, my students have demonstrated understanding way more often. ■

## Common verbiage and question stems from the SAT

The main focus shifts from...	Draw a connection between...
Which choice provides the best evidence that...	The main purpose of this passage is...
It can be reasonably inferred that...	The author's statement implies that...
Which best describes the overall structure of...	Which statement is most consistent with...
What is the meaning of the value " <u>    </u> " in this equation?	Which of these is equivalent to the expression...
What is the value of x?	Based on the information given...
What is an appropriate label for ...	Which of the following expresses...
<u>        </u> best approximates...	<u>        </u> represents the relationship of...
According to the graph above ...	Which of the following must be true?



## Bringing Equity to Multiple Choice

People are most successful taking tests when they are cool, calm, and collected. It's important to craft questions and answers that do not evoke emotional responses and are sensitive to the different, ages, genders, and racial and ethnic groups taking the tests.

### Make sure your MCTs

- Are balanced or have neutral representation as to age, gender, culture, and race and ethnicity
- Contain questions that avoid sensitive topics unless relevant to the subject matter (e.g., the criminal justice system, HIV/AIDS)
- Avoid presenting age, gender, culture, or ethnic groups in a stereotypical fashion, even in wrong answers.
- Reference content equally familiar to all groups (e.g., avoid slang and specific jargon, include narrative questions familiar to any test taker)