

Multiple-Choice Testing: Perception Verses Reality

By Jessica Levknecht-AFT/WTU Teacher Leaders 2014-2015

Rationale

I teach a required Latin course at a college-prep magnet school in DC Public Schools where rigor and assessment are paired. I am interested in why students tend to prefer multiple-choice (MC) tests, but it has always perplexed me that students would have a preference for a test format on which they struggle. “Educators have been interested in student attitudes because of their possible impact on learning, the most important outcome of instruction and important, useful and reliable data can be obtained through student perceptions” (Tozoglu and Gurses, 53). I have two aspects to consider - do students really prefer multiple-choice tests? Why or why not? If they do, are they able to perform well on tests or do they perform poorly? Do students think that they can make improvements on their performance on MC tests? How do students feel that they can improve their MC performance?

Literature Review

There is a lack of research on student perception of test questions in the United States. Two studies compared student preference for MC compared to essay questions. In 1987, Moshe Zeidner compared MC and essay tests in two middle-class neighborhoods in northern Israel. Zeidner found that “the multiple-choice type format was viewed as being significantly easier, less complex, clearer, relatively more interesting, less tricky and fairer than the essay exam. Furthermore, the multiple-choice tests elicited a higher success expectancy, was perceived to be less anxiety evoking and made respondents feel more at ease than the essay format of test” (354). A 2011 study used Zeidner’s ten dimensions (difficulty, complexity, clarity, interest, trickiness, fairness, value, success expectancy, degree of anxiety evoked and feeling at ease) (Nassar and Qaraeen and Naba’h, 346) to look at student perception of essay and MC tests. Nassar and Qaraeen and Naba’h found that Jordanian students in high school preferred MC exams to essay tests. The students found the MC tests were less difficult, less complex, clearer, more interesting, trickier and fairer than the essay exam. Students also thought that the MC exam was better in terms of expectancy to success, made them feel less anxious, and better in terms of feeling at ease compared to the essay examination.

Methodology

Students completed a survey on their perception of their performance on the mid-term examination, taken during the third week of January 2015. My goal was to compare student perception on the survey with performance on the MC questions. After looking through the preliminary data, I identified several students to interview about their perception of multiple-choice about how they could improve both performance and perception. My follow-up questions were intending to help better understand why the students would prefer a type of question on which they didn’t do well.

Observations

Of the 131 students who took the mid-term examination, 123 students completed the survey. The largest number of students (35 -28%) found the multiple-choice to be the easiest. Multiple comments related to using process of elimination or the question to help clue in on the answer. On difficulty, all the students rated the multiple-choice as 5.37 (4.74 – average for MC as easiest sub-group). On complexity, all the students rated the multiple-choice as 5.81 (5.57). For clarity, all the students rated the MC as 8.05 (7.31). On the fairness of the MC questions, all students measured at 7.93 (7.23). For feelings of anxiety, all students felt that the multiple-choice was 6.02 (5). The students as a whole predicted they would score about 79.89 (78.66). 93 (76%) students related that they were good at MC. Most answers related to the student’s ability to narrow down the answer choices to be able to find a correct answer. 30 (24%) of students said they were

not good at MC. Many quotes related to the idea of questioning the answer choices after having eliminated down to two answers. Students expressed that this makes them feel anxious and that they are not able to succeed because at that point the answer feels like a guess.

Data Analysis

I was surprised that the number of students who picked MC as the easiest wasn't at least a little higher. For those students who rated multiple-choice as the easiest, they also rated the difficulty lower (.63), the complexity lower (.24) and their level of anxiety as less than the other students (1.02). On the other hand, those students rated the MC as being less clear (.74), less fair (.70), and predicted that they would have a lower score than the general population (1.23 on 100 questions). These findings could relate to the fact that the thirty-five students who rated MC as their easiest part, interestingly, were essentially two different types of students. They were either a student who tends to score well (90% and above) on MC tests (14) or a student who struggles on MC tests (14) (70% and below). Very few (7) of the students who preferred MC typically performed average.

Of the thirty students who said that they were not good at MC, six of those students were overlapping with multiple-choice as their "easiest" part of the test. These are six students who are weaker test-takers in general, with approximately a C-/D+ average overall grade amongst them. These students recognized that they liked the options that MC gave them. In interviews with those students who thought that they were good MC test-takers, but did not perform well, these students identified that they get most confused when there are two answer choices which are the closest to being correct, because they feel that is where they most often go wrong. Several students vocalized that they thought that they would do better on MC if they felt more confident with the content. Half of these students were not sure what they could do to become better multiple-choice test takers.

Classroom/Policy Implications

It was refreshing to find that not all students found the MC to be the easiest, which could mean that perhaps it is a small number of (perhaps lower-performing) students who vocalize and hope for the MC style test. I need to find those students and work with them early to improve narrowing down answer choices. I hope to continue this research by adding more student performance data in other subjects/standardized tests and adding targeted methods of improving multiple-choice to see which techniques are the most effective for improving performance. As long as we test students, MC will be an option and students need to be prepared to match their perception of success and reality on the questions.

On the educational policy landscape, the shift to the Common Core and testing through PARCC and Smarter Balance requires that students become more adept at MC and perhaps not approach it as being "easier" than other forms of testing. Especially low-level students should be targeted in helping to narrow down answer choices based on evidence, which is a skill that teachers using Common Core should help students to develop over the years. I saw trends in this data where an outsider researcher might not have. There needs to be funding and a space made in educational research for teachers conducting action research.

Bibliography

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