Self-Assessment Accuracy of Undergraduate Mathematics Students on Academic Performance

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Abstract:

Research shows that low-achieving students are generally not aware of their weaknesses. Consequently, many students might not realize the need to explore the subject matter more deeply in order to improve their conceptual understanding and computational skills. This article analyzes self-assessment behaviors of undergraduate students in mathematics courses of different levels. Students at three universities were asked to predict their expected grades on academic exams, and these predictions were compared with the grades assessed by their instructors. Our results show: (a) Students generally overestimate their perceived level of preparation and their performance; (b) Gender has no significant effect on self-assessment behaviors, but overconfidence and overestimation are more likely among male students than female; (c) Students in introductory-level courses appear to be more accurate predictors than students in advanced-level courses; and (d) Students in the B-range (80 - 89%) are the most accurate predictors.

Keywords: academic success, self-assessment behaviors, undergraduate mathematics teaching

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