**Maximizing Learning: Effective Use of Quizzes and MCQs in Pharmacology**

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**Introduction.** Several approaches involving modifications to give partial credit (PC) for multiple-choice questions (MCQs) have been tried over the past seventy years. One method involves assigning different weights to options that capture the option's proximity to the best answer.

**Aims.** We examined the effects of assigning PC to selected answer choices on student performance and perceptions in a pharmacology course using MCQs.

**Methods.** PC scoring was incorporated into quizzes and exams in a 10-week pharmacology course for postbaccalaureate premedical students (n=27). Selected MCQs were scored using predetermined weights based on the proximity of each option to the best answer. Responses were analyzed using a grounded theory-based approach.

**Results.** Of the 105 Type A MCQs administered, 31 (30%) were awarded partial credit. The average percentage score on these items was significantly higher with partial credit (86.1%, SD = 5.7%) compared to conventional scoring (76.5%, SD = 9.1%) (paired students’ t-test, p<0.0001). Students with lower performance showed greater score increases compared to high performing students. Qualitative analysis revealed nine major themes, including increased confidence.

**Discussion.** Incorporating partial credit MCQ scoring using differential option weighting had attitudinal and motivational benefits for students in addition to increased scores. Students reported an increased sense of fairness and a feeling that their score more accurately reflected their knowledge. By reducing the all-or-nothing stakes of MCQs with partial credit, assessments can be less intimidating and boost students’ confidence and motivation to learn from their mistakes. When students receive feedback that their answer is partially correct, they may be more receptive to understanding their mistakes and engage in self-directed learning.

1. Schneid, S.D., Armour, C, Brandl, K. B. (2025). Beyond Right or Wrong: How Partial Credit Scoring on Multiple-Choice Questions Improves Student Performance and Assessment Perceptions. British Journal of Clinical Pharmacology (in press).