

LEARNING BIOCHEMISTRY THE WRITE WAY: WRITING AS A TOOL TO PROMOTE CONCEPTUAL UNDERSTANDING

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Many studies have demonstrated enhanced conceptual understanding by students when learning involved writing about the concept, including in STEM. Further analyses of these studies indicate that writing is most effective when the assignments contain the following: (1) A meaning-making writing task; (2) Clear writing expectations; (3) Interactive writing practices; (4) Opportunities for students to partake in metacognition. However, writing is not commonly used in the teaching of biochemistry. This research, conducted in a first semester General Biochemistry course over three semesters, investigates the effectiveness of writing assignments containing all four of the aforementioned constructs to teach and enhance student understanding of biochemistry concepts. Performance on a selected exam question was used to assess conceptual understanding. Findings indicate that the writing assignments can enhance student understanding but that student engagement during the peer review and revision process is critical to how successful the writing assignment is in enhancing student understanding.

