

## Conceptual Writing and Its Impact on Performance and Attitude

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### Abstract:

In a small study, the authors found that writers improved more than non-writers numerically on a post test; but the difference was not significant overall except in the case of the lower level mathematics class. Furthermore, the authors found that within the writers group: 1) females had more negative attitudes about communicating mathematically than males and, 2) students who were the most diligent in their writing about concepts had significantly more negative attitudes about their ability to do mathematics which seemed to correspond with the adage, “The more I learn, the less I know.” The previous study used a complex writing heuristic and, as a result, the authors believe that more focused writing is key to conceptual understanding. They propose to conduct a larger study using a visual assessment skills instrument that contains concept questions that are not directly related to the course.

conceptual understanding,  
writing to learn mathematics,  
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attitudes toward writing in mathematics,  
attitudes toward mathematics