Dissertation Title: The Effectiveness of Model-Based Instruction on Student Achievement and Student Metacognition in Advanced Chemistry Classes

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Defense Date: October 25, 2017
From: Amanda Edwards [mailto:acedwar98@students.kennesaw.edu]
Sent: Monday, October 23, 2017 10:01 PM
To: Bodner, George M <gmdbodner@purdue.edu>
Subject: Permission Requests-Purdue Visualization of Rotations Test

Dear Dr. Bodner,

I am Amanda Edwards, a doctoral candidate in the Ed.D. program for Chemistry Education at Kennesaw State University in Kennesaw, Georgia.

In preparation for my dissertation study on the effectiveness of model-based instruction on student achievement and student metacognition in high school chemistry classes, I discovered your 1997 article in The Chemical Educator entitled “The Purdue Visualization of Rotations Test.” My research study aims to evaluate the effectiveness of model-based instructional practices in helping students with varying spatial abilities and field dependency-related information processing styles learning chemical kinetics topics. The Purdue Visualization of Rotation test would be used to measure the spatial ability level of approximately 112 participants in the study and will allow for the creation of low, medium and high spatial ability groups. Data collected from a pretest-posttest experimental design will be analyzed based, in part, on the spatial ability of participants.

Your article states that a copy of the 20-item test and a scoring key can be obtained from you directly and that permission to use the test is freely granted (p. 13). I write today to ask if it is still possible to obtain a copy of The Purdue Visualization of Rotations test and scoring key from you. Additionally, I seek your permission to include the practice question accompanying the directions for the test as an image in the body of my dissertation and the complete 20-item test as an appendix to the dissertation.

Would you grant me the permission I seek or help me contact the appropriate person(s) for gaining this permission?

Thank you for your time regarding this.

Warmest regards,

Amanda Edwards
Amanda:

I have attached three PDF files. One contains a copy of the test, another is a copy of the paper on construct validity, and the third is the scoring rubric.

Note that we tend to use a strict time limit to minimize analytical instead of gestalt processing.

Feel free to include any part of this in your dissertation.

Let me know if you have any questions.

George Bodner