

Reflections on the Instructional Materials Development course

Fred Boehm

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1 My goals when I began the IMD course in January 2014

I enrolled in the course with the goals of further developing my interests in the scholarship of teaching statistics and extending my studies from Rick's "Teaching Statistics" course to consider in detail the teaching of statistical reasoning and methods in science (non-statistics) courses.

2 What I learned from the course

I devoted considerable effort to thinking about ways to present statistical ideas in the context of a science class. Through discussions with Travis and Bill in the context of our group project, I came to appreciate to a greater degree the value of integrating statistics throughout a science course, rather than isolating the study of statistics in the undergraduate science curriculum. Such isolation of statistics, say, as a single "unit" in a science class, implicitly places less importance on statistics. I intend to continue to think about how to integrate statistics throughout science courses with the goal of impressing upon the students the pervasiveness of quantitative methods in scientific research.

3 How well I achieved my goals

I'm very happy with the progress that I made towards my goals. With the combination of 1) the Monday afternoon discussions and 2) the group project, I both nurtured my interests in teaching scholarship and developed instructional materials for teaching a statistical concept in an introductory science class.

4 What I believe to be the most successful aspect of my group project

The most successful aspect was the close collaboration with Bill and Travis. Learning from them and their experiences was extremely valuable. They have great insight into college students' ways of thinking about statistical concepts. They also have experience with technologies (video lectures and others) that I haven't used.

5 Any particular concerns I had about my group project

In January & February, I was unsure of how much Bill would let us do in his class. It turned out that we (Travis, Bill, and I) worked well together and, I think, succeeded in implementing our materials and achieving some if not all of our objectives for the module on recurrence intervals.

6 Activities/topics used in this course that helped me achieve my goals

The group project was priceless. I was delighted that our class had two instructors who volunteered to implement the modules this spring. The class would have been less meaningful had we not been able to implement our materials in a real class.

I also valued the readings and guest speakers that we hosted. I remain intrigued by the notion of "threshold concepts" and hope to learn more about this idea over the summer.

7 How we might better facilitate this IMD course in the future

I'm not sure. I can't over-emphasize the critical importance of implementing our materials in a real class. I would encourage you to continue to prioritize recruitment of instructors who want to implement materials from the IMD course in their classes.