

RESEARCH SKILLS by designing and conducting research ethically and effectively and presenting their findings at a professional level in oral and written forms

Summary of Assignment: Action Research Project

This assignment served as the culminating project for the masters' program. We conducted action research in our own classrooms in order to address a research question based in current issues in science education. This project spanned several semesters, allowing time to explore possible topics, conduct research, and write up the final paper.

Connection to student learning objective (SLO): Research Skills

This assignment took us through all of the steps of conducting action research. In addition to learning about the research process, including informed consent, we were able to develop communication skills by sharing our findings to a variety of audiences. We also experienced many roadblocks along the way to completing our action research projects. This experience taught us to be flexible, probably one of the most important characteristics of a good researcher.

While most teachers conduct some type of informal action research in their classrooms on a regular basis, this assignment allowed us to formalize the process. The statistical analysis of data and the academic tone of the written assignment brought increased credibility to our research. Additionally, the poster session and in class presentations created a forum for us to discuss our findings both to a large group and on the individual level.

Person Implications of Assignment within the SLO

This assignment was the most personally rewarding of the program. The actual process of research provided me with a different point of view from within the classroom. While the teacher as research position was very taxing at times, viewing achievement based directly on student work changed the way I evaluate lesson plans. I now have more confidence in my ability to evaluate the success of my students and to change my plans accordingly.

Working through this project forced me to work on my writing within the context of education as a discipline. One of the most challenging aspects of this program as a whole was to make the transition from writing and research in the field of science to that in education.

The process of completing this assignment also increased my interest in conducting research. At first, I was hesitant to attempt non-quantitative research. Also, I was concerned about the many variables that could effect performance of human subjects. While I am still not fully convinced of the validity of all of the studies that I've seen, my statistical analysis gave me more confidence in this type of data. As a result, I am interested in pursuing additional opportunities for research in the field of education.