

Final Report 10-28-05
Faculty Research Grant, 2004
Problem-Based Learning and Psychological Type

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1. Description of grant-supported activity

I had sabbatical leave for one semester, Spring, 2004, for the purpose of continuing my scholarly work in problem-based learning and psychological type, and to apply this scholarly work in my teaching and teaching-related service. My faculty research grant issued in March, 2004, was used to purchase test materials, support data collection and analysis, obtain certification to administer one of the tests, and to obtain summer salary for data analysis and writing work. I administered the Myers-Briggs Type Indicator (adult) with three teachers (who teamed for this learning experience) and the Murphy-Meisgeier Type Indicator for Children with three classes of approximately 30 6th-grade students each at Osolo Elementary in Elkhart. In addition, I observed the 6th grade classes, collected work samples such as written reflections about the learning experience, and interviewed their teacher while they worked on a problem-based learning unit in which each small group developed and ran a business for a school Mini-Mall project. The teacher developed this problem-based experience during my IUSB class, *S512 Problem-Based Learning Workshop*, in 1999, and has continued to further develop it in each subsequent application in her school. From this study, I was interested in answering the question: *Does an individual's psychological type (as measured by the instruments above) impact in some way his/her response to the constructivist, active learning framework of problem-based learning?*

The actual activity occurred very much as planned in terms of data collection. In January, February, March and April of 2004, I was present collecting qualitative data at Osolo Elementary School in Elkhart several days a week. Approximately 55 of the 90 students completed informed consents for full participation in the study. I interviewed a small group of students from each class several times and observed one class each time they worked on the Mini-Mall problem. I was also present to observe the day the Mini-Mall took place at the school. I conducted a final follow-up interview with the teachers. I had volumes of observation notes and audio-taped interviews to transcribe. I have been able to do some of the data analysis work myself.

2. Were you able to complete the project? Describe any difficulty you had.

I did complete data collection in April, 2004. This was a challenge because the study had to be re-reviewed by IUB in midstream. Revisions of the informed consents for students and teachers were required. Those revisions have been submitted previously to the IUSB Office of Research and to Bloomington. In addition, because I did not receive enough money in the faculty research grant to pay for transcribing assistance, I have found it difficult to complete all the data analysis required in such an intensive qualitative study.

Over the summer of 2004, and the 2004-05 academic year, I was able to complete transcribing from several interviews and observation notes. An unexpected stint as program coordinator during the 2004-05 year took time away from this scholarship project. Therefore, I have not fully completed data analysis to my satisfaction.

3. Did, or will, the project result in a specific product -- a manuscript, composition, syllabus, etc? If so, please describe and indicate state of development.

Yes, I have presented at an international conference (the proposal for the structured poster session was blind peer reviewed, and a discussant was present at the session):

Sage, S.M. (2005, April). **Problem-based learning and psychological type: Results from three sixth-grade classrooms.** Presented at the structured poster session 56.085, *Assessing Implementation and Impacts of PBL in Diverse K-12 Classrooms*, at the annual meeting of the American Educational Research Association conference, Montreal.

In addition, a Yahoo discussion forum was created after the session to further discuss ideas. A Web site summarizing the session and including my poster presentation is located at <http://www.bie.org/AERA2005/>.

I had another paper accepted for the Association for Psychological type biennial conference in Portland, OR, in July, 2005, but was unable to attend the conference and to present my work, due to financial constraints.

As the service demands in the School of Education at present continue (accreditation visit this December), as well as my involvement in the HLC Self-Study Steering Committee, it is an ongoing challenge to protect scholarship time. I am continuing data analysis and writing and plan to expand the presentation from last April into a manuscript within the next year.

In addition, my becoming certified to administer the MBTI and MMTIC have been a great help in my courses here at IUSB. I have administered the MBTI to two of my EDUC F201 classes, and our resulting discussions about type and teaching have brought very positive comments from students. Students are demonstrating more self-awareness and positive communication with others in the class. I have also incorporated type theory into the M314 methods course and the J511 individualized instruction course.

Finally, I plan to propose a new graduate course for Summer, 2007, about using type theory in the classroom for better instruction. The audience will be primarily practicing teachers in this area, and could become an ongoing course used as an elective in our master's programs in Education.

I wish to thank the IUSB Research and Development Committee for their support on this project.