

**Evaluating the Impact of Problem-Based Learning in Diverse Contexts****H23***Individual Paper***Using SoTL to Inform Course Redesign***Brenda Refaei, Rita Kumar (University of Cincinnati)*

We designed a SoTL project to understand the effectiveness of using Problem-Based Learning in our Intermediate Composition courses. Intermediate Composition is a second-year writing course that is required by all programs at our University. PBL is a pedagogical approach that is based on the social construction of knowledge. Although professors have much to offer students, students can also learn important lessons through interactions with their peers. The PBL approach emphasizes those important interactions. Amador et al. (2006, p. 131), propose that PBL "allows both us and our students to see the purpose of higher education: informed, thoughtful, and engaged citizens working together to solve problems that people really care about." In our SoTL project, we collected data on student perceptions of PBL as well as student writing samples. This data was analyzed to understand how this pedagogy impacted students' critical thinking skills. We used Elder and Paul's definition of critical thinking which defines it as "self-directed, self-disciplined, self-monitored, and self-corrective thinking." This definition integrated well with our goal of preparing students to independently assess their writing situations in order to craft an appropriate response to the situation. PBL has been found to promote students' critical thinking in other settings. In a study of PBL in business writing, Pennell and Miles (2009, p. 393) assert "through PBL students are experiencing deep rhetorical learning, developing, organizational sensitivity, learning to respect the local, and practice an ethic of change, and even some suggest that they are working really hard." We used a SoTL project to determine if our students also experience "deep rhetorical learning." Our results showed that in some areas they were, but in other areas, the course needed further refinement. This presentation will demonstrate how the SoTL results were instrumental to the redesign of the course. One of the major revisions made to the course was the clarification in the rubrics used to assess student work. The data suggested that the scenario for the first problem needed revision. The original scenario was too abstract, so we worked to ground it in current events related to the course theme of human rights. In addition, we changed the problem product in the second scenario from letter to report to allow for a more authentic use of sources. Our results also indicated that students needed more scaffolding in evaluating the information they use to support their points in their writing. We redesigned the problem scenario to provide the needed scaffolding. We believe the SoTL project has helped us to refine the course so it better promotes students mastery of the student learning outcomes. We will continue to collect data to ensure that our modifications truly support student learning.

**H24***Individual Paper***Enhancing students' understanding of values in practice: Integrating theory & practice in SoTL***Caroline Wong (University of Queensland)*

This paper investigates the findings of an educational intervention that seeks to enhance students' understanding of an organization behavior concept such that students' learning between theory and practice can be improved. The intervention explored the use of problem-based learning (PBL) in management to help students understand the topic of values in practice. It took the form of a written essay in which students had to identify a personal problem to a value conflict and generate an action plan to the problem.

The intervention made use of a real-world problem to provide the context within which students develop an understanding of a management concept such as values and develop skills and techniques in diagnosis and problem solving. Part of the action plan required students to use a self-assessment generated based on feedback given by their significant others. Students became committed to the problem because they were one of the stakeholders in the situation. Such form of self-directed learning aims at creating learning experiences that are as close as possible to experiences that students encounter in real life and it requires analytical and interpretative skills to do so.

Traditionally case study method has long been used by business schools as the most powerful pedagogic approach to developing managers yet it has been denounced as a futile exercise as students are often placed in a manager or consultant's seat in deciding outcomes for a well-structured problem. Such an

approach indicates a didactic and deductive way of applying a theory to practice and the focus is basically on cognitive learning (Bonoma, 1989; Shapiro, 1984; Whetten & Clark, 1996).

In the dynamic global workplace today, managers often have to deal with problems that are most often ill structured and ambiguous. This is where problem-based learning (PBL) as an educational approach allows students to use unstructured real-life problems as the starting point of the learning process to help link their world of experiences to the principles and theories learned in the classroom (Graaff & Kolmos, 2003). Students are actively engaged in constructing their own knowledge and practice using new skills and concepts and re-examining past learning based on their actual experience (Argyris, 1980; Barrows, 1986; Bigelow et al., 1999).

While PBL has been used successfully in many disciplines such as medical schools, engineering, architecture, social work, law and nursing to develop students' problem solving skills specific to the discipline (Barrows, 1994; Gerald, 2005), there has been very limited research in the management field that provides examples and engaging problems for PBL (Miller, 2004) apart from a few good examples provided for web-delivered PBL (Waters & Johnston, 2004) and using PBL to diagnose organizational problems affecting survivors of natural disasters (Jayawardana & O'Donnell, 2007). This paper attempts to build on existing literature in this area.

Qualitative and quantitative evidence in the form of perception and performance data were collected to examine the level of confidence and competence that students have in using problem solving to understand values in practice. The quantitative data included responses from survey questions in the form of rating scales (likert-scales) as well as student summative performance in the assigned essay assignment. The qualitative data included open-ended survey responses, informal chats with students and students' reflections about their experiences in the essay assignment and focus group interviews. In this way, the breadth and depth of data could be collected through using perception and performance data. The qualitative data were analysed to provide insights for interpreting the quantitative data.

The findings supported that the essay assignment intervention did result in enhanced learning of the concept of values in practice as students derived confidence and competence to voice their values in relation to a conflict. Such a problem solving approach to learning allows students to generate relevant rules or principles from their experiences and empower students' learning to be authentic, contextual and goes beyond teaching of content to making learning more meaningful. Critical reflection and feedback on the intervention suggested further refinement and improvement be made to the essay assignment with the aim to improve students' learning experience.

This intervention was carried out based on student feedback for more engagement with the course activities. As a result of introducing this intervention and researching on the pedagogies related to this, I have become more aware of the underpinning philosophy of constructivism in problem solving that enables students to engage deeply with the subject matter. The intervention has enabled me to take an active approach to the development of course materials as I try out new ideas and look at teaching and learning from a different perspective. It has helped me to take a relational view of learning and seeing it from the perspective of the learner as well as of the teacher. Such an exercise provided a platform for me to reflect on the continuing professional development that is expected of teaching faculty in higher education where one learns from experiences of others (including feedback and comments), personal practice and training. It has also given me the opportunity to revisit my previous teaching and use different educational techniques and tools to bring about deeper learning for students.