Student and Instructor Experiences with Types of Teaching and Learning in a Computer Course

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Purpose of the Study
Research has shown that active classroom engagement increases the learning performance of students in higher education (Cross, 2000; Reese, 2013). This study sought to examine the experiences of students and instructor in a computer applications course in which the pedagogy was changed to encourage additional interaction among students and between students and the instructor. The goal of the study was to generate useful, practical knowledge (Reason & Bradbury, 2001) to help the instructor better understand her pedagogy with the intention of improving both her teaching practice and student learning outcomes, as well as to contribute to related literature in adult education, collaborative learning, and research on effective pedagogies in higher education.

Conceptual Framework
Peters and Armstrong’s (1998) Types of Teaching and Learning model

<table>
<thead>
<tr>
<th>Type</th>
<th>Instructor Role</th>
<th>Learner Role</th>
<th>Information Flow</th>
<th>Main Mode of Delivery</th>
<th>Focus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type I</td>
<td>Distributor of knowledge</td>
<td>Recipient of knowledge</td>
<td>Instructor to student</td>
<td>Lecture</td>
<td>Individual learning</td>
</tr>
<tr>
<td>Type II</td>
<td>Transmitter of knowledge &amp; empowers</td>
<td>Recipient and sharer of knowledge</td>
<td>Instructor to student, student to</td>
<td>Lecture and discussion</td>
<td>Individual learning</td>
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<tr>
<td></td>
<td>students to share knowledge</td>
<td></td>
<td>student to instructor</td>
<td></td>
<td></td>
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<tr>
<td>Type III</td>
<td>Co-learner with the group and facilitator</td>
<td>Co-learner with the group</td>
<td>Learner to learner, learner to group,</td>
<td>Dialogue</td>
<td>Group and individual learning</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>group to learner</td>
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Research Questions
1. How do students and I experience different types of teaching and learning in the course?
2. How does the incorporation of these types of teaching and learning contribute to student learning outcomes and teaching improvement?

Methodology
- Study design - Action research project to study my practice
- Study participants - Volunteers at the end of the course
- Data collection - Interviews with volunteer participants; my notes and observations
- Data analysis - Transcriptions by an independent transcriber; used NVivo for analysis; looked for themes across interviews
- Ethical Considerations/Minimizing Risks - Protected participants’ identities: not knowing who participated, grades recorded prior to interviews, informed consent and interviews conducted by a research team member, no personal identifiers used for participants

Findings
- What stood out for the study participants and me included
  - Creating a positive learning atmosphere
  - Taking time
  - Making connections
  - Attending to process
  - Transferring knowledge and skills

Conclusions
- Blending of typologies of teaching and learning was effective in engaging students as co-learners with me
- Students and I felt comfortable in the classroom partially because of the time spent developing relationships
- Areas that stood out for participants in the study confirmed areas of interest and importance in the course
- I am more confident and a better instructor and facilitator of my own and others’ learning
- Will continue using different typologies which provided me the challenge I desired and gave me the opportunity to grow as an instructor
- Looking forward to continuing to engage students in taking responsibility for their own learning, to be a purposeful co-learner with students, and to enhance my teaching ability

Data Sources

<table>
<thead>
<tr>
<th>Data Sources</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interviews</td>
<td>Research team member</td>
</tr>
<tr>
<td>Field notes</td>
<td>Researcher</td>
</tr>
<tr>
<td>Observation</td>
<td>Researcher</td>
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</tbody>
</table>

Areas for Future Research
- Research on effective pedagogies in higher education
- Continuing research with my classes gaining student input on how and what to teach
- Applying results of research for continuous improvement in teaching
- Exploring others’ research especially in the area of computer learning

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