Embracing the Mission: A Case Study of Adjunct Faculty Perceptions of Online Problem-Based Learning for Professional Development

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Abstract

As institutions of higher education develop programs at a distance, they are challenged with the task of creating a professional community online that incorporates the values and mission of the institution, especially when some of the faculty are part-time. Harding University designed an online orientation entitled "Embracing the Mission" that introduced all adjunct faculty to the university's history and encouraged each participant to think creatively about how to integrate one's faith into teaching and learning across various academic disciplines. An online problem-based learning (PBL) model was selected for the orientation's instructional design. The purpose of this case study was to explore the data that had been collected over three years in order to evaluate how well the PBL design had led to helping adjunct faculty understand the mission of the university and integrate the mission into their teaching. This study collected quantitative and qualitative data, drawing from post course evaluations completed by the participants in the first and third year of the implementation. Findings revealed that the participants perceived the PBL online orientation to be an effective way to learn the institutional mission. Other salient themes included collaboration, frequent communication by the facilitator, and time as commodity for part-time teachers.

Introduction

Harding University, a liberal arts university, is a growing faith-based institution in central Arkansas. In the fall of 2013, the school enrolled 4429 undergraduate students and 1808 graduate students. The university holds classes on its main campus in Searcy, but it also has remote sites in North Little Rock, Bentonville, and Memphis (TN). The university also has many undergraduate and graduate courses online. In addition, the studies abroad programs, the "International Program," offers opportunities for students to study internationally on campuses in Australia, Chile, England, France, Greece, Italy and Zambia. Enrollment has increased since 1987; and in order to accommodate a growing student body, like many other institutions of higher education, Harding hires adjunct professors. Each year, the university hires about 150 adjuncts, and it is the desire of the board of trustees and university president for every teacher, part-time and full-time, to embrace the mission of Harding in his or her classroom (Crouch, 2013).
In response to this concern, the university decided in 2011 to create an online orientation that would introduce adjunct faculty to Harding's history and mission in an effort to encourage each participant to think creatively about how to integrate faith into teaching various academic disciplines. The orientation's title, "Embracing the Mission," was inspired by the book bearing the same title and written by Dr. Bruce McLarty (2010), who became president of Harding in 2013. At the time this orientation was created, Dr. McLarty was serving as vice president of spiritual life. Drawing from his doctoral dissertation, he wrote *Embracing the Mission* as a manual for new faculty at Harding to learn the heritage and mission of the university as well as to encourage new teachers to think Christianly about their academic disciplines. The online Embracing the Mission orientation extends Dr. McLarty's vision into professional development onto a digital platform that reaches to each of Harding's campuses as well as facilitators in online courses.

A problem-based learning model (hereafter PBL) was selected for the orientation's instructional design. Although it was presumed that each of the adjunct teachers had a positive relationship with the university and were motivated to teach their courses, the reality of asking part-time teachers to participate in a professional development orientation would receive some resistance. Indeed, each of these teachers already had a full schedule in addition to teaching. Motivation to attend, complete, and benefit from the orientation would be a concern. It was decided that the PBL model would challenge the participants to work in groups, generate a sense of peer motivation, and appeal to the teachers' professionalism to attempt to solve authentic fictitious scenarios.

The first orientation was implemented in the fall of 2011 and has continued each year. The purpose of this report is to explore the data that has been collected over the past three years in order to evaluate how well the PBL design has led to helping adjunct faculty understand the mission of the university and integrate the mission into their teaching. This study draws from post course evaluations completed by the participants and compares responses from the first and third year of Embracing the Mission's implementation. The following two questions guided the research:

RQ1: How do adjunct faculty evaluate the PBL model in faculty development?

RQ2: How do adjunct faculty evaluate using PBLonline in faculty development?

The perceptions of the adjunct faculty offers informative contributions to the research base in problem-based learning, faculty development, and online education.

**Precedent Literature**

**The Rationale for PBL**
Over the last fifty years, more and more professional programs have implemented PBL into their curricula. While PBL was first introduced at McMaster University for medical students in the mid-twentieth century (Albanese & Mitchell, 1993, p. 52), other institutions followed suit by experimenting with PBL in an attempt to find better ways for students to use their
book knowledge in their practices (Tan, 2003, pp. 27–29). The range of PBL use spans disciplines at a variety of levels, from graduate schools in medicine, business, and educational leadership, to kindergarten through 12th grade, college courses, and even theological education (Albanese & Mitchell, 1993, p. 52; Amador, Miles, & Peters, 2006; Barrows, 1996, p. 10; Bridges & Hallinger, 1995; Harding, 2001; Madueme & Cannell, 2007). Since Harding's adjunct faculty teach for a variety of programs, which include undergraduate liberal arts, nursing, graduate education, graduate Bible and ministry, and graduate professional programs such as pharmacy, physical therapy, and physician’s assistants, a PBL orientation would create a learning environment in which participants from dissimilar backgrounds could work together, drawing from their individual knowledge, skills, and experiences in order to solve a common problem. The university would anticipate participants to develop deeper ownership of Harding's mission, commitment to Christian education, and skills for integrating their faith in their disciplines.

Margetson (1998, p. 39) lists three important characteristics of PBL learning environments: encourages "critical and active learning," respects the contributions of others, and regards knowledge as socially constructed. Barrows (1998, pp. 630–631) includes "student-centered" and "collaboration" in his list of PBL essentials. Each participant in the adjunct orientation brings with herself or himself academic credentials, an expectation of professionalism, and a personal context, which may include a full-time job elsewhere, as well as a family. In order for the orientation to succeed, facilitators must treat participants as adult learners, respect them as professionals, and accommodate their busy schedules. The PBL model combines flexibility, professionalism, reflective learning, and respectful collaboration in a dynamic learning encounter. In addition, because many adjunct faculty have limited connections with the Harding community, the social learning environment of PBL could lead to beneficial long term professional relationships.

According to Knowles et al. (2011, pp. 63–67) adults' learning environments must be relevant to their contexts in order to motivate them for learning. In PBL, a well-designed, ill-structured problem passes the relevancy test by its authenticity, and it motivates learners by appealing to problems that they would want to solve (Barrows, 1998, pp. 631–632; Kitchener, 1983, pp. 224–225; Wee Keng Neo, 2004, pp. 48–56). PBL also counters the resistance inherent to professional development meetings by inviting participants to engage in a situation in which they have vested interest. Therefore, by designing the adjunct orientation to include an ill-structured problem that threatens or disequilibrates the participants' anticipated benefits of teaching for a Christian university, the situation itself draws the participants into the learning environment.

The Rational for PBLonline
Harding's adjunct faculty have degrees in philosophy, education, theology, pharmacy, and other sciences. Because of the nature of being adjunct professors, they currently have a professional context. The participants' full-time jobs and time restraints must be considered in the course design. In addition, adjunct faculty teach on three campuses in Arkansas and online. Because of the time and proximity challenges, the best way to bring all adjunct teachers into one forum is to deliver the orientation online.
Savin-Baden (2006, p. 7) offers guidelines for problem-based learning taught online (hereafter PBLonline). For a PBLonline experience to succeed, the courses must be "team-oriented," "knowledge-building," teams of eight to ten participants, and have students engage in material either asynchronously or synchronously. The Embracing the Mission orientation fits each of these criteria except for the group size of five people. Eight to ten on a team is too large given the need for flexibility of schedules and the challenges of collaborating at a distance. Opinions differ on the appropriate group size (Bridges & Hallinger, 1995, p. 73), but Tan (2003, pp. 49–50) advises PBL groups to fit the learning context. In this case, coordinating synchronous and asynchronous meetings for five people will be difficult enough. Any more than five in the group could derail the process.

In addition to PBL concerns for online courses, adult learning theory must support the orientation's design (Cercone, 2008). When designed well, the gap in space and time provides natural bridges to self-directed learning, transformational learning, and experiential learning. Cercone (2008, p. 154) enumerates several recommendations for executing online education according to adult learning principles, such as directing active adult learners to find their own resources, to collaborate with others, and to develop decision making skills. She also recommends authentic contexts for student learning. One might note how these conditions for adult learning overlap with necessary elements for successful PBL experiences.

The design of Embracing the Mission rested on adult learning theory and PBL essentials. The course, therefore, attempted to accommodate the schedules of participants, draw from collaboration and the rich life experiences of the participants, provide enough resources to encourage further investigation and self-directed learning, include a reflection component to foster meta-cognition, and generate authentic interest through an ill-structured problem that spoke to real life concerns of the participants.

Research Procedure

Research Design
This study treated the Harding online adjunct orientation as a nested case study (Patton, 2002, pp. 447–449), providing a context and responses to the research questions:

RQ1: How do adjunct faculty evaluate the PBL model in faculty development?

RQ2: How do adjunct faculty evaluate using PBLonline in faculty development?

After three seasons of administering the orientation, data have been collected from several iterations, yielding a total of 85 participants from the fall of 2011 to the fall of 2013. Following each session, the university administered online course evaluations using CourseEval. The quantitative items were rated with a 5 point Likert scale and keyed to PBL principles and online course design. However each participant also had the opportunity to write in comments. Their comments have been evaluated in HyperResearch, using the open-coding method from which emerged common categories (Brott & Myers, 2002, p. 149). Additionally, the researcher served as resource for historical and contextual information.
pertaining to Embracing the Mission, since he was a participant on the course design team as well as a facilitator. In this sense, the researcher was also a participant in the case. To retain objectivity and to protect from researcher bias, only the adjunct faculty evaluations provided the data for answering the research questions.

The evaluation respondents from the 2011 sessions and the evaluation respondents of the fall 2013 sessions served as the two samples representing the population of Harding adjunct professors. The individual participants and their courses were not compared, and each informant has remained anonymous. The researcher has not linked any information to the individual participants, and their responses were not linked to specific facilitators. Furthermore, the university's Institutional Review Board approved this study due to the minimal risk to human subjects.

The limitation of this study was that it was primarily descriptive and did not draw from a randomized sample. The findings were not necessarily representative of all adjunct faculty. This study delimited its focus to adjunct faculty at Harding University who participated in the orientation.

Orientation Design

Design Overview
The orientation design is described in this section in order to provide a context for the participants' evaluations. Following a standard PBL model, Embracing the Mission was designed with four modules: Module 1-present the problem, Module 2-problem analysis, Module 3-solve the problem as a small group, and Module 4-report solutions to the whole group. This schema parallels PBL designs such as what is used by Tan (2003, p. 35), Amador et al. (2006, p. 10), and Wee Keng Neo (2004, p. 8). Within each module, participants found resources, forums for interaction and discussion, and a journal assignment for self-directed learning and reflection. Each course was designed to have fifteen or twenty participants with three or four groups of five people.

The Instructional Designers and Facilitators
A team of five Harding faculty designed the orientation. Each member of the team brought with herself or himself expertise in instructional design or distance education. Each team member contributed to the design of the orientation and served as one of the orientation's facilitators in the first year of the implementation. In years two and three, only two of the original design team continued as facilitators. To ensure proper scaffolding for the online course participants, literature was provided to the team members to equip them for their roles as facilitators in a PBL online course.

The Learning Outcomes
The university's administration wanted to ensure that all teachers understood, adopted, and implemented the integration of faith and learning in their classrooms. The list of outcomes below approaches the administration's intentions.

By the end of the orientation, the participants will be able to...
• Appraise how well Harding’s current mission statement represents the goals of Harding and Christian education of the twenty-first century.
• Create one or more strategies of how to integrate Christian ideals into academic disciplines of higher learning.
• Reflect on their own spiritual journeys and integration of faith with their disciplines.
• Evaluate the efficacy of group collaboration and problem solving exercises through the online learning management system.

The Resources
The university provided participants with printed and online resources. New full-time faculty receive the three books listed below as part of new faculty orientation.


In the first year of Embracing the Mission, each of these resources was mailed to the adjunct faculty participants as a gift from the university, though there were some delays in receiving the resources for some participants. Due to a limited supply of the books, in the second and third years, select chapters of Against the Grain and the entire book of Embracing the Mission were added to the online course in digital format. For Freedom was no longer included in the course. Although participants were encouraged to seek out other resources to solve the ill-structured problem, these books, along with videos, comprised the primary resources needed to learn about Harding's context and the school's mission of integrating faith and learning in Christian higher education.

In addition to textbooks and videos, introductory notes were included with each module to add clarity of instruction and to scaffold student learning. Facilitators were also available as resources throughout the process via email, forums, chat, phone calls, or face-to-face meetings.

The Ill-Structured Problem
PBL literature often refers to ill-structured problems as "messy" problems (Wells, Warelow, & Jackson, 2009, p. 196). Wu and Forrester (2004, pp. 68–69) also pick up on this terminology and note how messy problems create opportunities to evoke multiple intelligences in a group in order to solve a problem. The ill-structured problem for this course was to be messy enough to cause groups to look at their own expertise as resources. As participants contributed toward the solution, they naturally responded to discussions and group projects according to their own unique learning styles. The problem in this study focused on spiritual apathy among Harding’s students, presuming that spiritual development concerns would motivate religious teachers.
The Modular Template
Garrison and Vaughan (2008, p. 18) describe "communities of inquiry" as being comprised of cognitive, teaching, and social presence. Their concept of "communities of inquiry" fits nicely in a PBLonline learning environment. Each module contained three sections designed to activate reflection, inquiry, and problem solving: resources, discussion forums, and journals. In the resources section, participants would find materials useful for their weekly tasks, such as written instructions for the module, video messages (prerecorded from the president, assistant provost, and other faculty), articles, and links. These resources added to the textbooks provided by the university. Facilitators could provide materials as needed, and participants had the option to suggest other additional materials to be included for future courses.

The team and class discussions were created for asynchronous dialogue. The team discussions allowed for the smaller groups of about five people to work together to create a problem solution and to complete other team assignments. The class discussions provided the threaded space for all the session members to dialog. Both team and class discussion questions generated conversations about the problem-solving process and created opportunities for the facilitator to respond and scaffold the process. The discussions were designed to motivate interest in the orientation's problem and in self-directed learning.

The design team decided to include journal questions as a personal development piece. The questions were written to encourage reflection on one's own spiritual growth as well as to encourage the participants to consider how spiritual reflection might occur in both online and face-to-face learning. While discussion forums and journals allowed for asynchronous participation, participants were encouraged to have synchronous communication with the groups if possible. Beaumont and Cheng (2006, p. 196) describe PBLonline courses that allow for asynchronous, synchronous, and face-to-face meetings as "rich."

The Assessment Plan
According to Norman (1998, p. 264), assessment in PBL measures more than knowledge, it measures students' abilities to use knowledge in their contexts. In an effort to assure that assessments align with desired outcomes, Elizondo-Montemayor (2004, p. 9) recommends the use of both formative and summative assessments to measure knowledge base, clinical skills, self-directed learning, and collaboration among students. The combination of formative and summative allows for scaffolding by the tutors during the process, as well as evaluations of student learning once the process is complete. Swanson et al. (1998, pp. 271–278) use the terms "process-oriented" and "outcomes-oriented" methods of assessment to express similar concepts. Therefore, a successful PBL unit must include formative assessments (process-oriented) as part of the design as well as summative assessments (outcomes-oriented).

The Embracing the Mission orientation drew from PBL literature and implemented both formative and summative assessment tools. The journal entries and weekly discussion participation served as formative assessments, and they measured the first and third learning objectives (appraising Harding's mission statement and reflecting on spiritual journeys). The facilitators provided guidance individually by responding to the journal reflections, and they
guided the groups through the discussions. It was in these dialogs where tutors were to engage student posts, offer suggestions, and monitor collaboration and solution development.

Two summative assessments were designed to provide data for the second and fourth learning outcomes (create strategies for integration and evaluate the efficacy of group evaluation in an online learning environment). The groups were assigned to construct a "statement of mission," addressing how they as a group would integrate faith and teaching. The groups also were asked to create a problem solution presentation, in which each group was to suggest ways for Harding professors to address spiritual apathy in their classrooms. After the statements of mission and problem solutions were completed, the groups posted the presentations into discussions for all participants to see. Guided by the facilitator, then, the entire class evaluated the small groups' presentations through discussion threads. Since no grades were given in the orientation, no rubrics were used for the presentations. Peer feedback in the discussion provided each group suggestions for improvement in implementing their solutions in real-life teaching.

Originally, two anonymous post-course evaluations were designed as a source of participant feedback about the PBL model. These evaluations provided the primary data for understanding the faculty perception of the PBL model for faculty development and their perceptions of using PBLonline. The first was a team evaluation. This instrument included Likert items as well as space for written comments, which helped facilitators gauge levels of participation and engagement within each group as well as measure perceived efficacy of the group process in attaining the learning objectives. The second was a course evaluation. This instrument also asked participants to use a Likert scale as well as written comments in response to essential components of the course and the PBL process. After the assessments were created as documents, they were later added to CourseEval and were combined in to one post-course questionnaire (see Table 1). Once the orientations were completed, participants were invited to complete the anonymous questionnaire online.

Findings

The post-course questionnaire data provided quantitative and qualitative evidence of faculty perceptions of the online PBL orientation. In this section, the data was explored in four major groupings. First, the Likert items and written comments from the 2011 sample were analyzed in relation to RQ1, "How do adjunct faculty evaluate the PBL model in faculty development?" Second, the Likert items and written comments from the 2011 sample were analyzed in relation to RQ2, "How do adjunct faculty evaluate using PBLonline in faculty development?" This same sequence was followed for the 2013 sample.

On the questionnaire, items Q1-Q11 were Likert items, addressing the PBL process, and Q12 was open ended for written comments. Specifically, items Q3-Q10 were keyed to PBL concepts: reflection, collaboration, self-directed learning (i.e., independent use of the resources), and the tutor. These responses were used to attain measureable faculty impressions of these principles. Items Q1 and Q2 asked participants to rate the degree to which they increased in understanding of the mission of the university and of the integration of Christian values and their disciplines. Item Q11 asked participants to rate the effectiveness
of PBL as a means for learning about integration. Items Q1, Q2, and Q11 offered a measurable sense of how the participants perceived the effectiveness of the PBL orientation. Item Q13 asked how many hours per week participants spent on the course. Item Q13 was not part of the original questionnaire, but it was added after three sessions of the orientation had been completed in 2011. Items Q14–Q18 were Likert items addressing the small groups. Items Q19 and Q20 were open-ended questions, asking for written comments about the group (see Table 1).

Table 1. PBL concepts paired with the questionnaire items.

<table>
<thead>
<tr>
<th>PBL principle</th>
<th>Likert items</th>
</tr>
</thead>
<tbody>
<tr>
<td>The students learned</td>
<td>Q1: My understanding of Harding’s Mission increased because of this course.</td>
</tr>
<tr>
<td>course content.</td>
<td>Q2: I have new ideas about how to integrate Christian values in the courses I teach.</td>
</tr>
<tr>
<td>Reflection</td>
<td>Q3: This course challenged me to grow spiritually.</td>
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<td></td>
<td>Q8: Journal questions challenged me to reflect on my own spiritual journey in Christian education.</td>
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<tr>
<td>Collaboration</td>
<td>Q4: My group collaborated effectively</td>
</tr>
<tr>
<td></td>
<td>Q7: Forum discussions enhanced my thinking about integrating faith and learning.</td>
</tr>
<tr>
<td>Self-directed learning</td>
<td>Q5: The textbooks provided by Harding helped me.</td>
</tr>
<tr>
<td></td>
<td>Q6: Resources provided in Canvas helped our group create ways to solve our group’s problem.</td>
</tr>
<tr>
<td>The tutor/facilitator</td>
<td>Q9: The facilitator guided our group through our problem-solving process.</td>
</tr>
<tr>
<td></td>
<td>Q10: The facilitator provided appropriate feedback for my personal growth and learning.</td>
</tr>
<tr>
<td>PBL model</td>
<td>Q11: The problem-based learning model helped our group think deeply about integrating faith and learning.</td>
</tr>
<tr>
<td>The group</td>
<td>Q14: Our group created one or more options for integrating Christian values in teaching.</td>
</tr>
<tr>
<td></td>
<td>Q15: Group members demonstrated effective communication skills within the group.</td>
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<tr>
<td></td>
<td>Q16: Each member actively contributed to the learning process.</td>
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<tr>
<td></td>
<td>Q17: I know the members of my team better now than I did before the course began.</td>
</tr>
<tr>
<td></td>
<td>Q18: Our group produced a better solution to the course problem than I could have created alone.</td>
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Perceptions of 2011 Adjunct Faculty on the PBL Model (RQ1)
Quantitative Analysis

In the summer of 2011 emails were sent to the university’s adjunct faculty, inviting them to register for the Embracing the Mission orientation. Ten four-week sessions were scheduled, and six sessions populated with a total of sixty-three participants. At the end of each session, the participants were asked to evaluate their experiences through an online questionnaire with CoursEval software, and 48 participants completed it. The responses have been aggregated across each session, and the test items have been grouped according to their respective PBL principle. As can be seen in Table 2, participants rated each category as generally positive, ranging between 3.4 and 3.7 (3=“neutral”; 4=“agree”) on a 5 point scale. None of the scores averaged above a 4, failing to move toward "strongly agree." Little can be inferred by these numbers in relation to RQ1 other than the participants perceived that the PBL orientation had made a positive difference. The score of 3.6 for items Q1 and Q2 indicate that participants were likely to perceive that they learned more about the mission of the university after having completed this course. The rating of 3.4 for the PBL model itself could indicate weak support for PBL as a viable option for faculty development.
Table 2. Questionnaire responses from the 2011 participants

<table>
<thead>
<tr>
<th>PBL Principle</th>
<th>Mean response (n=48)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The students learned course content.</td>
<td>3.6</td>
</tr>
<tr>
<td>Reflection</td>
<td>3.5</td>
</tr>
<tr>
<td>Collaboration</td>
<td>3.5</td>
</tr>
<tr>
<td>Self-directed learning</td>
<td>3.4</td>
</tr>
<tr>
<td>The tutor/facilitator</td>
<td>3.7</td>
</tr>
<tr>
<td>PBL model</td>
<td>3.4</td>
</tr>
<tr>
<td>The Group</td>
<td>3.5</td>
</tr>
</tbody>
</table>

Qualitative Analysis

Though the quantitative responses lend support in favor of the PBL model for faculty orientations, the participants' responses could also indicate limited support. The qualitative items on the post-course questionnaire offered participants the opportunities to provide more details about their evaluations of this PBL orientation experience. The written comments items were included in the questionnaire as follows:

Q12: Please write in any additional comments you would like us to know.
Q18: How would you describe the greatest asset experienced in your group?
Q19: How would you describe the most significant challenge experienced in your group?

Item Q12 allowed for the participants to specify how they experienced the orientation, and items Q18 and Q19 offered space for the participants to evaluate in their own words their group experiences, a key feature of the PBL model. Several comments offer insight into how the adjunct faculty experienced the PBL orientation (RQ1). Through the coding analysis three PBL process themes emerged: collaboration, facilitator, and PBL instructional design. In addition to these three categories, time surfaced as a salient theme.

Collaboration

Collaboration is considered to be an essential of the PBL course design (Barrows, 1998; Margitson, 1998), and the orientation was designed in such a way to encourage collaboration among the adjunct faculty through online discussions and group projects. The participants had varying responses to the collaboration theme. It appears that participant perception in many ways reflected the success of the small group's collaboration. Several comments were made that indicated frustration over lack of participation by group members. One person wrote, "About half of my group consistently worked on the project.... When it came to actually produc[ing] a deliverable, I and one other member created ... a presentation and mission statement.... We got very little feedback from our group when we asked for it."

Another person expressed the unequal participation by group members in this way "... the 'group' aspect left questions about who was to take the lead and some group members obviously put more effort (or at least time) into the project than others." One person critiqued her or his group more strongly: "My group was aweful [sic.]. One person was good and responded, another one just agreed with whatever ideas I put forward but did not contribute beyond that, the other two members were just completely unresponsive." The critical feedback reveals a major weakness in the orientation. Since the PBL process depended on
social learning, when groups became dysfunctional, their dysfunction sabotaged the entire experience for the group.

Not all responses toward the group participation were negative. Some of the groups experienced successful collaboration and in turn developed strong attachments to the group. One person declared, "I loved my group! And all the work we're doing, the questions, everything!!" Where this bonding occurred, there was an appreciation for getting to know colleagues and a tendency for members to want to meet their teammates face-to-face, as was expressed in the following statement: "The one person in our group who was willing to work toward a deliverable in the timeline and I actually forged a pretty good working relationship. Getting to know her via Moodle was a pleasure and I hope to actually meet her in person soon." In this comment, one can see a hint of frustration that more in the group were not participating, but the fact that this person "forged a pretty good working relationship" with one colleague in an online space indicates a successful connection made through the PBL collaboration design. Another respondent likewise mentioned how she or he "would enjoy meeting class members face-to-face sometime." Two other comments shed light on positive collaboration in the groups: "I was encouraged to find likeminded individuals who could stretch my thinking and challenge me to grow and be a better educator" and "Members put forward good ideas, and communicated them well. Responses were well thought out."

For the sake of transparency, the negative comments towards the lack of group participation were stronger and more frequent than the positive statements; however, when compared to the Likert scale items, both the collaboration and group categories were more positive than negative. These varying responses indicated to the course designers and facilitators that more attention should be given to the collaborative segment in future iterations of the course.

Individual perspectives in conjunction with collaboration surfaced as another salient theme in the evaluations. One person wrote, "I think our greatest asset was that we vary in age and gender so we brought different perspectives to the table." The participants represented multiple disciplines, something that they valued: "Just seeing how everyone has different teaching backgrounds and how you can learn from their experiences was a positive thing." The following comments suggest that the individual perspectives were not only valuable but that they also synthesized through collaboration to produce a positive experience with the course material: "How each one brought their own ideas, and all together they 'melted' into just a few sentences that expressed them best. It has been a great pleasure to see different people giving their own ideas about one subject and how well it worked out."

Based on these results, the facilitators were encouraged to monitor group participation more closely. Groups with non-participating members were encouraged to move forward. Careful records were kept to see who participated, and only active participants were given credit for completing the orientation. In future sessions, complete/incomplete grades were also assigned in order to help participants track their progress, hoping that the grading system might motivate more people to stay engaged in the orientation.

The Facilitator
Another key component to the PBL model is the role of the tutor or facilitator as one who guides the problem solving (Bridges & Hallinger, 1995, pp. 50–87; Tan, 2003, pp. 43–58). Barrows (1998, p. 632) has called the role of the tutor the "backbone for successful PBL." The participants in this study seemed to have judged the effectiveness of their facilitators based on availability and frequent communication. When facilitators were engaged for the whole four-week period, the participants had positive things to say. When facilitators were not quick in responding to questions or lagged in online discussion, participants generally grew frustrated. For example, one participant recommended that the facilitators "check the forums twice daily." This same person noted how his or her facilitator sometimes allowed two or three days to pass before responding to questions. A different participant suggested, "In order to facilitate a class like this I think you must be constantly checking your email and the forums, and this clearly wasn't done."

Participants who had more positive experiences with their facilitators stated so in the evaluations. One person wrote, "Interaction with [the facilitator] was the best part of this course." Another regarded "helpful feedback from the facilitator" to be an asset of the experience. Again, the level of interaction by the facilitator tended to result in a positive learning environment: "Overall, I have been very impressed with the Adjunct class. [The facilitator] did a great job of facilitation, and Moodle was used effectively in the effort." Clearly, the strength of the PBL experience was closely connected to how well the facilitator generated a space for discourse and reflection on the subject material. In the following statement one can see how helpful guidance allowed teams to complete the PBL process: "Our facilitator ([name]) was very helpful and provided great guidance and feedback. It was a little challenging to get everyone on our team to participate and collaborate with busy schedules, but we got it done."

At the end of each session, all the facilitators and the Provost office received the evaluation results. The communication comments reinforced the importance for each facilitator to remain engaged in the orientation process from start to finish. Facilitators were also encouraged to check the online course daily and to respond to the adjunct faculty discussions, journal posts, and messages in a timely manner.

**PBL Instructional Design**

The participants also reflected on the instructional design of the orientation. Not only did this feedback assist in course improvements after 2011, the participants' comments on course design indicated their perceptions of the PBL process. Though the written comments did not address the problem-based learning model directly, several people complained of confusion and frustration over lack of clear directives in forming the problem solution. One person felt that the problem-solving process was too simple and wrote, "For the entire 4 weeks we were confused about what we should be doing. The 'problem' was so basic that we had the problem and solution in the first week." One might question whether this group had really "solved" the problem or simply created a solution without delving deeply into the situation. A similar comment from another revealed uncertainty in how to participate: "However, the structure was a bit cumbersome. I know that several in my group were confused about the mechanics of the class."
In spite of the frustration over the lack of explicit directions in the course, all groups completed their assigned tasks, and some of the participants expressed how this instructional model was new and something worth learning: "I think this was a new style of learning for all of us, but it proved to be helpful." The decision was made by the facilitators to offer more explicit scaffolding in future sessions in order to reduce the anxiety and create more positive learning environments.

**Time as Commodity**

Time surfaced as a salient theme from the adjunct faculty. The participants valued the time they gave to the orientation and evaluated the orientation based on how much time it took them away from other activities. The university decided not to offer financial incentives for participating other than requiring them to take the orientation within their first year of teaching at the university. Therefore, time became the most valuable bargaining commodity between the teachers and the institution.

Multiple participants referenced time as a means for evaluating the orientation, using statements like "warrant our time" and "waste of time." The participants weighed the time spent in the orientation with demands on their time in their full-time or private settings. Other references included "busy schedules" and "conflicting schedules" of the group members. Another wrote, "Again, I love my job. But, I love my children, too. This took time away from them."

One way participants referenced time was in their desire to reduce their time on the project from four weeks online to a few hours face-to-face: "The whole process would have been much better if all of the local participants could have met for 1-2 hours." Others wrote something similar, "I see the merit in the course but would have preferred for it to be a Saturday morning seminar;" and "What was accomplished could have been covered in a short 2-3 hour intense meeting instead of dragging it out over 4 weeks."

The Provost's office and facilitators were receiving these evaluations after each session throughout the 2011 semester, and they noticed how often "time" was mentioned as a concern. In order to measure the time actually spent on the orientation, item Q13 was added to the evaluation, asking adjunct professors to estimate how many hours per week they were participating. Although the responses to this question ranged from thirty minutes to ten hours, the mean time spent per week was three hours.

Regarding the time concerns, the design team decided to reduce the orientation from four weeks to three. Scheduling a face-to-face weekend seminar was also considered, but later when invitations to the orientation were sent out, there was a lack of interest in attending a seminar face-to-face.

**Summary of Faculty Perceptions of the PBL Model in 2011**

Collaboration surfaced as an important theme in the 2011 sample. Teams that collaborated well reflected a positive experience and enjoyment of the social learning. Teams that did not collaborate well had a negative experience with the social learning. The strength of facilitation also emerged as an important theme. Frequent communication and careful
guidance during the PBL process resulted in positive feedback from the participants. When communication was lacking, the participants expressed a desire for more facilitator engagement. Concerning the PBL design, participants perceived the orientation to lack a clear goal or focus. The ill-structured problem-solving assignment along with the constructivist design may have contributed to the resistance to the ambiguity of the course. Finally, the participants regarded their time as valuable, and participants questioned whether the orientation was worth their time.

Perceptions of 2011 Adjunct Faculty on PBLonline (RQ2)
The CoursEval questionnaire did not ask directly how participants perceived a PBLonline experience. However the Likert items that revealed perceptions of student learning and the open-ended written comments about online as a medium provided most of the data for addressing RQ2.

Quantitative Analysis
Likert items Q1 and Q2 asked participants to rate the degree their understanding of the mission of the university increased and also the degree to which they had new ideas about integrating Christian values with their disciplines. With these two items combined under the category of what students learned the mean score was 3.6 on a 5 point scale (see Table 2), meaning that the participants as a whole were more likely to that they increased in learning the course objectives. Although this result did not address PBLonline explicitly, the numbers indicate that PBLonline may be used effectively for professional development among adjunct faculty.

Qualitative Analysis
Participants addressed the online technology as a medium more directly in the written comments. Usability and collaboration surfaced as the most salient themes. First, some concern was shared about the usability of the learning management system (Moodle) and the learning resources in the course. The videos did not work consistently for all sessions. One person wrote, "The video of the teachers never did open for me and I tried on 3 different computers, so I don't know if this would have helped at all." Another participant shared a brief anecdote of how he or she entered responses to discussions only to have "everything [go] blank." This same person noted how sufficient technical support for Moodle was unavailable. When participants considered the online system to be "faulty," this led to frustrating learning experiences.

Second, participants voiced concern over the effectiveness of collaborating in an asynchronous learning environment with unfamiliar colleagues. One person wrote, "Forcing me to work online with 3 ladies that I didn't know was challenging." Another expressed, "I thought the course was valuable, although it was somewhat difficult to accomplish through the computer screen." This particular comment indicates validation of the learning experience but a lack of preference for online learning. Finally, another person said, "Brainstorming is hard to do through email."

Although there were participants who did not prefer the online learning environment, there were also those who saw its value. Two professors expressed interest in collaborating in the
future. Others noted how the online learning platform was used "effectively." One person noted how the discussions were useful for communicating "easily." Participants also recognized how since some of them were located in remote locations (as far as Greece), the online orientation offered a way for them to work together.

In spite of the frequent interest in meeting face-to-face and some resistance to using an online platform, the evidence shows that the adjunct faculty were meeting the course objectives, which included learning how to communicate and to learn online. One of the participants voiced this well by stating, "I use Moodle for my courses, but I guess it was helpful for people new to Moodle to see the possibilities." The university decided to keep the PBL online format for future iterations of Embracing the Mission, while keeping in mind the technical difficulties and challenges expressed by the 2011 participants. Steps were taken in the subsequent sessions in 2012 and 2013 to assure functionality of all the videos, files, and links in the course modules. Facilitators were also encouraged to assist participants in learning how to communicate more effectively online.

**Perceptions of 2013 Adjunct Faculty on the PBL Model (RQ1)**

In the fall 2013 semester the administration emailed invitations to all university adjunct faculty who had not yet completed the Embracing the Mission orientation. Three sessions were scheduled, and forty-four participants registered. Whereas Moodle served as the learning management system in 2011, Canvas was used in 2013 in consistency with the university's institution-wide switch to the new system. Although the functionality of the new online platform differed, the basic instructional design and appearance of the course remained the same. Another major change from 2011 and 2013 is that the university hired Dr. Bruce McLarty as president. This only affected the orientation design in the sense that the new president replaced his predecessor in the course materials and videos. In spite of the major change for the university, participants did not comment on the change of presidency, and it is outside the scope of this case study to determine what kinds of effects a change in presidency and learning management system had in participant perceptions.

**Quantitative Analysis**

Just as in 2011, each participant was invited to complete an online post-course evaluation through CoursEval. Twenty-nine people completed the questionnaire, and the responses have been aggregated across the three sessions and grouped according to the PBL principle keyed to the questionnaire items. Table 3 shows the results in comparison with the results of 2011.

<table>
<thead>
<tr>
<th>PBL Principle</th>
<th>2011 Mean response (n=48)</th>
<th>2013 Mean response (n=29)</th>
</tr>
</thead>
<tbody>
<tr>
<td>The students learned course content.</td>
<td>3.6</td>
<td>3.8</td>
</tr>
<tr>
<td>Reflection</td>
<td>3.5</td>
<td>3.7</td>
</tr>
<tr>
<td>Collaboration</td>
<td>3.5</td>
<td>3.8</td>
</tr>
<tr>
<td>Self-directed learning</td>
<td>3.4</td>
<td>3.6</td>
</tr>
<tr>
<td>The tutor/facilitator</td>
<td>3.7</td>
<td>4.3</td>
</tr>
<tr>
<td>PBL model</td>
<td>3.4</td>
<td>3.7</td>
</tr>
<tr>
<td>The group</td>
<td>3.5</td>
<td>3.6</td>
</tr>
</tbody>
</table>
Given that this report is a case study, not an experimental one, the quantitative data remains descriptive. Following each orientation, the facilitators and course designers reviewed the evaluations, which informed subsequent sessions. Specific variables or interventions were not isolated for experimental analyses; rather adjustments were made throughout the process. The data indicate positive movement in each PBL category when comparing 2011 to 2013. Figure 1 gives a visual representation of this trend, and even though the 2013 numbers are higher than 2011, the graph demonstrates parallel responses in terms of how categories were rated higher or lower. According to the Likert scale items, participants in 2013 generally rated the orientation more positively than the participants in 2011. The largest increase fell in the tutor/facilitator category (from 3.7 to 4.3 on a 5 point scale). As mentioned above, the number of facilitators dropped from five in 2011 to two in 2013, and by the time the participants evaluated the facilitators in 2013, these two had already taught the course at least three times in three different semesters. One would expect the facilitation to improve and for this to be reflected in the evaluations. Furthermore, it should be noted that the entire experience for the 2013 participants would have been more developed than that of the 2011 participants. Any complications with resources, administrative communication, and technical problems would have been corrected by this time. In addition, the change from a four-week session to a three-week session could be reflected in some of these more positive responses.

![Figure 1. A comparison of PBL principle scores between 2011 and 2013 (Based on a 5 point scale.)](image)

**Qualitative Analysis**

The qualitative responses in 2013 resulted in similar themes to the 2011 sample, but there were notable differences in overall attitudes toward the orientation. Participant perceptions of the PBL orientation (RQ1) for the sake of comparison are reported below in the same categories of collaboration, facilitator, PBL instructional design, and time.
**Collaboration**

Participants addressed collaboration and teamwork frequently in the evaluation. Collaboration was listed as an asset by some and as a challenge by others, depending on the level of group participation for the small group or team problem-solving exercise. Teams having non-participating members were labeled as "difficult," "last-minute," "stressful," and not "effective." There were also multiple comments regarding group work in an online format, which speaks more to RQ2 than RQ1. In sum, most critiques of the collaborative effort were focused on absent teammates and the challenges of working as a group in an online asynchronous format.

In spite of the apparent dysfunctional experiences of some in the group exercises, several voiced strong support for their team and their team's ability to collaborate. One person wrote, "I enjoyed the collaboration and sharing of ideas throughout the class within our group." According to another participant, "Each member made a significant contribution to the overall assignments." Again, another noted how the group dynamic "fostered fantastic conversations and sharing of problems, ideas, and solutions." The degree of equal participation by each member seems to have affected the degree of satisfaction participants had toward the collaboration process.

Individual perspectives also surfaced as a salient theme in the 2013 sessions. As with the 2011 participants, the 2013 respondents valued their sharing of ideas and experiences with faculty from varying academic disciplines and backgrounds. One commented, "It is good to mix the type and experience of adjuncts in this course for diversity and maturity of discussions." Another wrote, "It is always a benefit to get as many views as I possibly can ... these are valuable resources to draw from as I consider teaching future classes." One person concluded, "Hearing others [sic.] viewpoints and how they approach problems always stretches us to grow and learn."

**The Facilitator**

In 2011 respondents criticized their facilitators strongly when they perceived him or her to be disengaged or lagging in communication. Their criticism cast a shadow over their entire learning experience, resulting in confusion and frustration. In 2013 no respondents criticized the facilitators to this effect. In fact, comments were brief, few, and positive, such as "[The facilitator] was great" and "I thought [the facilitator] did a great job and was very helpful." One response added more details to this overall positive impression: "[The facilitator] was a great facilitator, I felt he did a great job making each member feel like an important part of the class. He provided good feedback and was engaged in what we were doing as a group." Though an argument from silence, the lack of criticism, especially when compared to the positive feedback given about both facilitators, seems to indicate that measures taken to engage more and to communicate better improved participant perceptions of the PBL process.

**PBL Instructional Design**

Participants shared feedback that evaluated the PBL instructional design, although fewer comments were made in this sample than with the 2011 sample. The following statement summarized well how this person reacted to the major components of the PBL design:
It was very challenging to work as a group to solve the problem together. I understand the importance of group work but this didn't seem like the best scenario for groups. Our group barely participated in conversation which made the whole project ineffective. The independent work and journal entries were completely fine and seemed like a more appropriate way to facilitate a class with professionals teaching at HU as well as their other respective jobs.

This participant saw the group process as problematic but appreciated the self-directed learning opportunities. Another respondent voiced concern over the ambiguity of the "desired outcomes," but this person "really enjoyed the readings required." The self-directed learning portion of the course resonated with this person; however, the participant seemed to view the lack of clear directions as a concern. Likewise, another respondent shared a similar reflection: "Perhaps you mean for the course to be really, really open-ended, but that came off as a bit confusing. The reading was very good. The journal questions were good. The videos were good." These statements indicate positive perceptions of the course content, but the constructivist nature of the PBL model appeared to some participants as unstructured and ambiguous. The critique of ambiguity is consistent with the 2011 sample's evaluation, but the 2013 sample overall expressed more explicit and positive feedback concerning the course materials.

Time as Commodity

Time as commodity was a common theme for the 2013 sample as well. After 2011, the orientation was reduced to three weeks. Interestingly, none from the 2013 sample described the orientation as too long or as a "waste of time." Rather, a couple of comments were made that indicated the orientation to be short. One noted how it was difficult to do the work within the "short constraints of the course." Another concluded that the orientation was "well worth the time." In 2011 the adjunct faculty spent on average three hours a week working on the orientation. In 2013 the adjunct faculty reported on average about four hours a week. It is interesting to consider how both come to an average of twelve hours spent on the entire orientation. No one in 2013 claimed to have worked more than ten hours a week, but one person declared, "The last week it felt like 15!" Furthermore, the 2011 suggestion for the orientation to be held in a one- to two-hour face-to-face seminar seems unrealistic when compared to two samples that averaged twelve hours for the process.

Some participants voiced concern over how the orientation infringed on their time for other things, such as their full-time jobs, their teaching for the university, and family. One person suggested that adjuncts be compensated financially for their time, which connects to the theme of time as commodity. The following statement captured well the concern of time and the implication of a "short" orientation: "So, during this process it felt like I was torn between a full time job, a part time job, a college class, and my family. It was nice that it was a short time frame so I knew it wouldn't last all semester." Time also seemed to connect with collaboration in that multiple participants noted how group participation occurred last minute or was difficult because of other demands on time. This overlap between time and collaboration informs RQ2, since one of the purposes for hosting the orientation online was to accommodate for the busyness and other time demands of part-time adjunct faculty.
Given the changes that were made to the orientation based on 2011 responses and the generally positive comments made by the 2013 sample, these findings suggest that time as commodity continues to be a concern, although the current PBL design of three weeks was accepted better than the four-week design. Even though only one person recommended compensation for the orientation, the recommendation raises important considerations for an institution's fair requirements for part-time workers.

**Summary of Faculty Perceptions of the PBL Model in 2013**
The faculty perceived collaboration to be an important component to the orientation. Teams that collaborated well responded favorably toward the social learning experience. Teams that did not collaborate well or that had multiple last minute entries to the discussion tended to regard the social learning as ineffective. The facilitators received positive comments from this sample, which bolstered the importance of frequent communication and helpful scaffolding in the PBL process. The PBL design itself received mixed perceptions from the faculty. Positive comments were made about the resources and self-directed learning opportunities, but some participants disfavored the ambiguity of the ill-structured problem and problem-solving task. Finally, time was highly valued by these participants, but aside from the one recommendation for participants to be compensated, no one indicated the PBL process to be an unfair use of the participants' time.

**Perceptions of 2013 Adjunct Faculty on PBLonline (RQ2)**
As with the 2011 sample, the CoursEval questionnaire did not ask the 2013 participants directly how they perceived the PBLonline experience. Findings were delimited to the perceptions of student learning and the written comments about the online medium and tools.

**Quantitative Analysis**
Likert items Q1 and Q2 asked participants to rate the degree of increase of their understanding of the mission of the university and also the degree they attained new ideas about integrating Christian values with their disciplines. With these two items combined under the category of what students learned the mean score was 3.8 on a 5 point scale (see Table 3). This number is slightly higher than the 3.6 of 2011 and indicates that participants are more likely to agree that they experienced an increase in learning of the course objectives. This result supports the use of PBLonline as an effective model for professional development for adjunct faculty.

**Qualitative Analysis**
Participants commented directly about their online experiences in the open-ended comment items. One major difference for the 2013 participants was that they were using Canvas as the learning management system, not Moodle. The change of learning management system could result in unintended consequences, but the transition was a university wide decision that happened to affect the Embracing the Mission orientation. A second major difference was that participants had fewer problems accessing or viewing the online resources. Previous iterations of the orientation allowed for most technical problems to be solved. As a result, the 2013 participants did not express similar concerns with the usability of the online resources or interface. Though some struggled, minimal comments were made expressing confusion.
over how to locate posts and assignments in Canvas. Most responses focused on collaboration, the effectiveness of online group work.

Those who disliked the online group work described their experiences as "frustrating," "stressful," and "inefficient." Such comments normally were paired with complaints about team participation. One person said the online group discussion was not "effective." Another voiced concern over not knowing when teammates would post. One participant declared, "Online group work! Not a good combination for most people." Although multiple people expressed this view, the dislike of online group work seems to be a personal preference and not necessarily "most people" in the sample. In this sample, as there was in 2011, there were some who would have preferred a face-to-face workshop instead of the online orientation. As noted above, time as commodity overlapped with RQ2 in that some perceived the PBLonline experience to require more of their time than a face-to-face experience.

Others, however, favored the online work, regarding the interaction as "convenient." One person listed the online discussions as the greatest asset of the group. Another recognized the value of interacting online with others who have experience teaching online: "It was good to connect with individuals who are teaching classes fully online." The participants valued teammates who had high levels of online competency: "Strong, constant communication and everyone understanding how to use Canvas well." Finally, one person extended the concept of online engagement to spiritual growth by noting how it would be challenging to help students "deepen [their] faith" through online interaction. Given that some of the university's courses teach biblical studies online or are encouraged to integrate faith and their disciplines online, this participant's statement shows evidence of how the online experience raised awareness of the challenges as well as opportunities for online teaching and learning to contribute toward spiritual development.

Discussion

The adjunct faculty have revealed several ways how their concerns and experiences in the PBLonline orientation overlap with PBL essentials and inform the creation and implementation of such programs for faculty development. This section of the report has drawn implications for the research questions from the primary themes of collaboration, facilitation, PBL instructional design, and time. Recommendations for using PBLonline for faculty development have also been listed as well as suggestions for further research.

**RQ1:** How Do Adjunct Faculty Evaluate the PBL Model in Faculty Development?

The theme of collaboration emerged as a major concern of the adjunct faculty. The orientation was designed according to PBL principles, which by definition included a social learning element. The impression of having a successful experience using the PBL model stood or fell based on successful collaboration of each team or small group. The findings suggest that successful collaboration in a PBL orientation depends on frequent, committed, and timely communication. For frequent communication members of groups ought to schedule into their daily routine a brief glance at new posts or messages. For committed communication all members of each group should be actively participating. Lack of participation or haphazard participation discourages others who give a solid effort in the
orientation. For timely communication, group members ought to contribute to threaded discussions prior to deadlines, not at the last minute. The findings reveal how last minute posts increase stress and frustration for those who are engaged throughout each weekly module.

As a subset of the collaboration theme, the participants valued the differing perspectives and backgrounds of the class members. Those teams that collaborated well and used these differences as resources recognized the benefit of a social learning instructional design. The course was designed for such interdisciplinary interaction, especially given the objective to consider ways to integrate faith with one's academic discipline. According to these participants, academic diversity serves the PBL process well.

Facilitation also surfaced as an important theme for the success of the PBL process. The participants expected the facilitators to communicate often and to offer guidance for the problem-solving requirement. Those from the 2011 sample who felt that their facilitator was not engaged with their groups were more likely to be frustrated with the process and consider the entire orientation a "waste of time." After the facilitators received this feedback and committed to having more direct guidance and more frequent communication, the complaints directed toward the facilitators stopped. In fact, the quantitative results showed the facilitator's effectiveness to increase more than any other category from the 2011 sample to the 2013 sample. In a similar and perhaps parallel solidarity with collaboration, strong facilitation leads to positive PBL experiences. Poor facilitation potentially sabotages the entire process.

The PBL instructional design theme received indirect comments rather than direct critiques. The strongest way the participants addressed the PBL instructional design specifically was their response to the ambiguity they experienced. One might suggest that the frustration they experienced over what some referred to as unclear directions was an indication of a poorly designed course. However, given the necessary disequilibration for an ill-structured problem to activate curiosity and readiness to learn, one could argue that the frustration was simply part of the process and an indication of a well-designed ill-structured problem and PBL course. It is difficult to say which is true based on the findings of this study, but it should be noted that the course designers intended the ambiguity, hoping that lack of direction from the facilitators would motivate group collaboration and stimulate creative problem-solving. As Land and Bayne (2006, p. 17) state, "Perhaps it is unsurprising that when asked to learn within a problem-based learning environment that emphasises a negotiated, exploratory and socially co-constructed route to understanding, there is a strong sense of disquietude among learners." In some cases, it appears that the lack of direction might have actually caused disengagement by some who were discouraged too much too early. After receiving criticism from both samples, future iterations of the orientation might consider providing more directions initially so as not to discourage participation.

Although the course designers anticipated the busyness of the adjunct faculty to be a concern, the adjunct faculty's concern over the time demands of the orientation confirmed this anticipation. In fact, time as commodity in some ways surprised the researcher, given efforts were taken in the beginning of the design process to accommodate for the part-time teachers'
full-time jobs, teaching demands, and family schedules. The participants evaluated the orientation and the PBL process based on its use of their personal time. This finding brings important insight not only to analyzing the PBL process and course design, but it also provides phenomenological data for the current discussion in higher education regarding fair treatment of adjunct professors (Hast, 2012; Schmidt, 2012, 2013). The suggestion for monetary compensation is worth considering for future iterations of the course, especially considering the amount of time (12 hours on average) this orientation adds to the adjunct faculty's work for the university.

RQ2: How Do Adjunct Faculty Evaluate Using PBLonline in Faculty Development?

The findings reveal that the PBLonline orientation served as an effective method for faculty development. The quantitative results show that the faculty were more likely to agree that they learned the course content after having completed the process. This finding does not suggest PBLonline to be more effective than face-to-face, but it does indicate successful attainment of the course objectives. An asynchronous online medium was chosen due to the geographic and time limitations inherent with having faculty from multiple campuses, geographic locations, and time zones. Even though some participants would have preferred a face-to-face seminar, the reality of the situation was that the online medium was more accessible and less costly than an on campus meeting.

One interesting comparison that emerged between the 2011 and 2013 experiences was that participants noted the problems that occurred when the orientation was new and technical issues were still being corrected. The faulty system or missing resources seemed to cripple in some ways the PBL learning experience through the online medium. However, after the online resources were readily available and the technical problems were resolved in later sessions, the online medium was seen more as an asset rather than a deterrent to successful learning. These findings reinforce the importance of planning and careful course construction before the orientation begins. Learning online can be a highly sensitive environment, and when one component breaks down, it has a ripple effect through the whole process.

As with RQ1, group participation concerns shed light on the faculty perceptions of the PBLonline process. Savin-Baden (2006, p. 7) emphasizes the importance of "team-oriented knowledge building discourse." When group dialog was weak or absent, it hurt the learning process. No matter how many built-in opportunities for dialog may be designed in an online course, no one can force people to participate. Therefore, the facilitators must think creatively about how to motivate participants to engage the topics, respond to questions, and collaborate with colleagues. It appears that adding a participation grade in Embracing the Mission may have encouraged or reminded people to participate. In addition to subtle reminders like this, the facilitators could remind teams directly through messages about the importance of collaboration. The facilitators could also empower the teams with absent members to work on their problem-solutions without the absentees, thereby reducing any anxiety one might feel in leaving behind one or more of their colleagues. The facilitators should also recognize their own responsibilities for modeling effective online communication.

An online course, in spite of attractive visual technology, can resemble the old blinking curser on a lonely blank screen when no one is present. Frequent and informative
communication from the facilitators could improve the volume of communication that takes place laterally among participants as well as reduce participant anxiety.

**Recommendations for PBLonline Faculty Development Orientations**

Based on the perceptions of adjunct faculty collected in this report as well as experiences of the researcher as a participant in the process, the following recommendations are offered to online facilitators, course designers, and administrators:

- Design online courses in such a way that all resources and tools are explicit and easy to access.
- Commit to frequent communication and facilitation.
- Given the gap in space and time, begin the scaffolding process early, reassuring participants that they have all the resources and assistance they need to create a problem-solution.
- Explore creative ways to motivate all participants to communicate effectively, but do not allow non-participants to sabotage the process.
- Explore ways for the university to compensate fairly the adjunct faculty for their additional work.
- Remain attentive to the life-concerns of the participants and value their time and commitment to the university through affirmation and encouragement in the course and through personal exchanges.
- Validate the participants as colleagues and as equals while engaging in online discussions and while providing feedback on assignments.
- Schedule orientations during times of the year when adjunct faculty might not be as busy, such as during the summer for teachers.
- Offer face-to-face meetings for adjunct faculty who are located in similar geographic regions.
- Conduct online webinars using media that allow for real-time face-to-face interaction, such as Skype, Webex, and Google+ Hangouts.

**Suggestions for Further Research**

This current report was delimited to the experiences of adjunct faculty at one university, and the findings will inform future iterations of Embracing the Mission. More research is needed to explore directly the usefulness of an online platform in faculty development. A qualitative study with interview questions focused on the online learning could lead to more thick data about faculty perception of learning online. Similarly, a qualitative research design could be conducted regarding the PBL process for adjunct faculty development without the online component. In addition, future studies could investigate through experimental research the cause and effect relationship of the role of the facilitator and the degree of course content learning. Another cause-effect relationship worth exploring would be to see how well adjunct faculty learn the course content in groups when compared to learning the material alone.

Finally, perceptions of the university administration could also be explored regarding the costs and benefits of using PBL and online media for faculty development.

**References**


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