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The VIP Approach - Applying a Virtual, Interdisciplinary Partnership to Support Innovation and Authentic Learning in Distance Education

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Abstract

This paper offers lessons learned from a partnership between the Texas A&M School of Innovation (I-School) and the Texas A&M Educational Technology program. Taking on the I-School as a "client," online graduate students in an Advanced Instructional Design course spent a semester designing the first of a set of online educational modules aimed to educate inventors, especially those emerging from research institutions, about the process of obtaining funding from outside sources for commercializing their technologies. Key elements of authentic learning experiences include *a real-world relevant project, collaboration, meaningful reflection,* and *a polished product* (Herrington et al. *Australian Journal of Educational Technology, 19*(1), 57-71. 2003). The design of the asynchronous course is discussed in terms of how it reflects these elements of authentic learning experiences. In addition, the experience of participating in this client-based authentic learning experience within an asynchronous, online course is discussed from the instructor, student, and client perspectives.

Keywords Authentic learning · Distance education · Innovation · Client project

Texas A&M University recently launched the School of Innovation, a new unit focused on providing opportunities for student-led, project-based, multidisciplinary learning. Known colloquially as the "I-School," the school aims to offer students, faculty, and staff the chance to explore opportunities and shared passions outside of the classroom–regardless of their major or degree level. Rather than creating new courses from scratch, the school seeks to coordinate existing university efforts to make it easier for members of the community to collaborate in research and education.

In the educational spirit of capitalizing on the expertise located across our university system, the School of Innovation sought out ways to capture existing Texas A&M experiences related to innovation, creativity, entrepreneurship, and leadership for future use and collaboration. One of the I-School's initial projects was to provide a set of online educational modules to teach new inventors the basics of how to

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pitch their idea to a potential investor. With the intent of these materials serving as a pilot for future educational projects, the I-School partnered with an Advanced Instructional Design course in the Educational Technology program housed within the Department of Educational Psychology to offer itself as a real-world client for the education students. The I-School wanted to ensure that this product was created by students for fellow learners, implementing best practices in developing learning objectives, instructional activities, assessment methods, and interface design. This article serves as a design case to outline the structure of the instructor, graduate students, and client representative.

Course Structure

The Educational Technology master's degree at Texas A&M is a fully online program. The students are located across the country and are typically working full-time, so the online classes are delivered asynchronously. To meet the I-School's request of designing a set of online modules aimed at investor pitch coaching, the students were provided a variety of documents and resources, including written and video guidance from the client, written materials on the commercialization

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process, and access to client representatives who could answer questions and serve as subject matter experts. The task was to produce the complete design documentation for the proposed modules, including learning objectives, practice activities, feedback, assessment methods, and module interface design. This documentation would then be passed on to a graduate student e-learning developer to create the set of online modules.

While the Educational Technology faculty typically include collaborative projects throughout the master's program, this was the first time the faculty designed a course as a fullsemester, fully online, client-based course. There were 13 students enrolled in the course, and they worked asynchronously in groups of varying sizes throughout the semester, depending on the task. In terms of the overall structure of the content, the instructor purposefully "front-loaded" new content related to advanced instructional design concepts during the first half of the semester, allowing students to focus on *applying* the content to the design of the client project during the second half of the semester.

Theoretical Perspective

The overall structure of the advanced instructional design course was based on an "authentic" approach to learning. Authentic learning is rooted in situated cognition, which states that knowledge cannot be separated from the context in which it is learned (Brown et al. 1989). Proponents of situated cognition recommend approaches such as cognitive apprenticeships "that embed learning in activity and make deliberate use of the social and physical context" (Brown et al. 1989, p.32) and the development of authentic activities "where students become immersed in problem solving within realistic situations resembling the contexts where the knowledge they are learning can be realistically applied" (Herrington et al. 2003, pp. 59-60). Herrington and Herrington (2006) summarize nine characteristics of authentic learning: authentic context that reflects the way knowledge will be used in real life, authentic activities, access to expert performances and the modelling of processes, multiple roles and perspectives, collaborative construction of knowledge, reflection, articulation, coaching and scaffolding, authentic assessment (pp. 4–9). These characteristics serve as a practical framework to guide researchers and practitioners in the design of authentic learning environments (Herrington 2006; Herrington et al. 2003; Lombardi 2007; Reeves et al. 2002; Smith 1986; Woo et al. 2007).

This paper will focus on four key elements of authentic learning: *authentic context, collaborative knowledge construction, reflection, and authentic assessment* (Brown et al. 1989; Herrington et al. 2003; Herrington 2006; Lombardi 2007; Woo et al. 2007). The authors of this paper–the course instructor, teaching assistant, graduate student, and client representative-will address each of these key elements from three perspectives: the instructor (and designer) of the graduate course, the student perspective of those enrolled in the graduate course, and the client's experience working with the graduate students.

Authentic Context

Researchers suggest that learning transfer can occur effectively when individuals acquire knowledge within a realistic context (Anderson, Anderson et al. 1996; Bennet et al. 2002; Grabinger 1996). Involving students in authentic learning activities often leads to more effective knowledge transfer and meaningful learning (Jonassen 1999). To create an authentic learning environment, the context should provide a "complex learning environment that can be explored at length" (Herrington and Herrington 2006, p. 4). Engaging with realworld practices, such as the roles and responsibilities of an instructional designer, provides the students an authentic learning experience that encourages them to reflect on the nature of the problem and build the connections between theory and practice (Squires 1999; Stein et al. 2004; Young 1993).

Course Design Strategies The instructor identified the need for the advanced instructional design students to be able to apply their skills to an actual client project. The instructional goal was to provide an authentic learning environment for the students with real-world instructional design tasks and the challenge of working with an actual client (Herrington et al. 2003; Herrington 2006; Reeves et al. 2002). The instructor designed a project-based course in which the students followed the typical process of instructional design projects. For example, these real-world tasks usually contain undefined and complex problems and require instructional designers to identify an effective solution to achieve the main learning goals (Herrington et al. 2003; Herrington 2006; Lombardi 2007). To help the students begin to define this problem space and break the complex problem down into manageable pieces, the instructor designed several brainstorming discussion sessions that required the students to collaborate with each other as well as the stakeholders, determine the most important content necessary for the learning solution, identify and organize the types of content involved, and consider possible instructional strategies appropriate for a mobile learning approach. To help focus the brainstorming sessions, the instructor began by proposing the following questions:

- How do you make the tenets of entrepreneurship and innovation understandable to a broader audience?
- How do you do it when you are not in the same room with them?

Once the students had a general understanding of the broad instructional problem, the instructor then encouraged them to consider how they could structure the content in such a way that would help the users actually learn and understand the material. How could they go beyond information presentation and make the new information relevant and meaningful? In addition, the instructor asked the students to examine how to achieve these objectives within a mobile learning approach. Instead of a traditional e-learning course where the user might sit at a desk, complete the course in an hour or two, and take a traditional assessment, the client wanted the learners to be able to explore the information when they had quick bits of free time-in between meetings, on the bus to work, waiting to pick up their kids, etc. After participating in the group discussions and reviewing the large amount of documentation provided by the client, the students decided on a microlearning approach, which would be based on the design of micro modules that could stand on their own and be completed in three to five minutes each (Paul 2016). The instructor's decision to have the students continually refine the project structure, from broad goals to a specific delivery method, based on an iterative process of reviewing the videos and documentation provided by the client, highlighted the project's "complex learning environment that could be explored at length" (Herrington and Herrington 2006, p.4) - a key feature of authentic learning environments.

Student Perspective The graduate students enrolled in the course noted that the use of a real-world client solidified the concepts taught in the class. Each concept played a part in the final project for the client, from understanding the learners and their motivation to designing strategies to promote critical thinking. Although most students in the course came from an education background and had taken other instructional design courses, the use of the real-world client stretched the students to begin thinking like a professional instructional designer. For some students, this stretch was challenging because of their background in K-12, where they are used to being the content expert. During the last week of the course, the instructor asked the students to reflect on their learning experience and their key takeaway. One student commented:

"I also realized with this course that I'm not a content expert, and at first, that was intimidating. However, as my team and I pushed through it,[and] did our own research, we learned how to take what we learned and modify it for our client's purposes." (Student 1, Course Reflection)

Additionally, the real client allowed students to see first-hand the nuances involved in navigating a client's "wants" versus what is needed for the learning solution. However, this process also felt chaotic at times for the students. As in the real world, there were delays in receiving information from the client, resulting in a rearrangement of due dates/tasks within the semester. In a face-to-face class, these types of "on the fly" changes are easy to make; however, these changes are more difficult to implement in an asynchronous online course (Kebritchi et al. 2017). During times when students felt confused or lost throughout the design process, the instructor would communicate via video or virtual meetings. The video provided important verbal and nonverbal cues regarding where the class was during the process-cues that can normally be lost when communicating via text (Crawley et al. 2009; Kebritchi et al. 2017; Romero-Hall and Vicentini, 2017). This authentic learning project gave students the valuable experience of working with subject matter experts and a team of project stakeholders to solicit information and translate the content into a structured learning solution-a key skill of an effective instructional designer.

Client Perspective This creative partnership between the instructors, graduate students, and clients served as a pilot for both the types of materials the I-School could produce for its users and the types of collaboration which might be possible with current students. From an administrative side, working on a project with current students can be quite a different experience from working with other administrators or permanent collaborators. Students are typically only available for a semester, a relatively short period of time considering the amount of behind-the-scenes work that must be done to complete a project from start to finish. Working with one set of graduate students in one course on short micro modules kept the problem of "too many cooks" in the educational kitchen to a minimum. Throughout the project, the instructors served as a point of contact or overall project leader between the clients and the students. Future partnerships would ideally provide more opportunities for the students to ask clients questions face-to-face (or as "face to face" as can be in an asynchronous, online course).

Collaborative Knowledge Construction

Researchers in the field have noted that effective collaboration goes beyond individuals working in groups. The output of this group collaboration should be something that each individual could not complete alone (Forman and Cazden 1985; Herrington and Herrington 2006). In the context of instructional design, the interaction and collaboration within the project stakeholders play a significant role in developing effective projects. Collaborating with peers as well as the client provides students the opportunity to problem-solve, critique ideas, and incorporate various perspectives in order to design the most effective and efficient learning solution. **Course Design Strategies** The course project was designed to begin at a broad, theoretical level and continually narrow in scope to specific tasks. In terms of collaborative activities, the instructor designed three levels of collaboration that were adjusted weekly to maintain high quality, focused interactions between group participants and help the students understand typical interactions they might have with project stakeholders as an instructional designer.

In the initial stage of the project, the instructor divided the students into three groups. The instructor assigned the first group to determine the main learning objectives and to identify each content type as fact, concept, principle, procedure, problem-solving, or attitude (Foshay et al. 2003; Morrison et al. 2019). The instructor assigned the second group to research the possible development tools to recommend to the client based on the project needs and constraints. The instructor assigned the third group to research educational trends that could have an impact on the design of the online modules (e.g., adult learning theory, microlearning, mobile learning). Students worked together to accomplish each of the assigned tasks within the group. Each of the tasks was broad enough that an individual student, particularly a novice instructional designer, could not successfully complete the task by his or herself. The multiple perspectives and peer assistance resulted in more thorough completion of each task. After completing the tasks, each group was required to post the results to the discussion board in the LMS for other groups to review and critique. Assigning each of the groups a separate task and using the results as the basis of a full-class discussion provided an efficient method for each student in the course to review the various types of information that must be considered at the beginning of an instructional design project without being overwhelmed by being responsible for all of the tasks.

In the second stage of the project, the instructor divided the students into two groups and assigned them to one of two major content areas ("Creating an Effective Pitch Deck" or "Developing the Pitch"). The instructor asked each group to conduct a needs analysis and finalize the instructional objectives for their assigned content area. Similar to the first stage, each group shared the results in the discussion board and received feedback from the course instructor, teaching assistant, and their peers. The instructor specifically designed these rounds of groupwork and feedback to encourage collaborative knowledge construction.

After the needs analysis, the instructor divided each group into two sub-groups of three to four students and assigned the students to design the instructional strategies for their content area. The instructor purposely decided to assign smaller group sizes to allow for easier brainstorming sessions. Again, the results of the brainstorming sessions of possible instructional strategies were then presented to the full group to decide on the final set of instructional strategies.

In the final stage of the project, the instructor redistributed the four small groups and assigned the students to two groups of six to seven students. The instructor assigned a specific role to each student. These roles supported the team's collaborative effort and included the roles of project manager, visual designer, instructional designer, and editor. Each of these roles aligns with the project roles in a real-world instructional design context. The use of virtual meeting and collaboration tools, such as Google Docs, Hangouts, Blackboard Collaborate, Skype, and text messaging were key to the success of this course in an online asynchronous format. This detailed level of collaboration allowed each student to experience the instructional design process as well as the ability to work virtually with other teammates and stakeholders, a valuable skill that mirrors what is happening in terms of virtual, global collaboration in industry.

Student Perspective The instructor was able to effectively transition the group exercises beginning with a broad view of the instructional design process at the start of the semester and narrowing the scope to focus on accomplishing specific tasks at the end of the semester. Using this approach allowed students from various backgrounds to work together toward a common goal and allowed the instructor to facilitate a class full of novice instructional designers to create one cohesive design document. The instructor's approach in assigning project roles in the final group exercise proved useful in streamlining the process of completing the design documents. The project manager was responsible for outlining the tasks and ensuring the project kept moving forward. The instructional designers fleshed out the instructional activities, the script, and the navigation for the storyboards. The visual designers designed the layout of the interface. The editor ensured that the documents were consistent and cohesive. Having the instructor assign roles at this stage of the course allowed the groups to work more efficiently.

As with any group project, there can be difficulties in working together. This can be magnified when students are at a distance and contributing asynchronously (Chang and Kang 2016). In instances where groups did not function well together, the instructor reassigned groups for the next exercise. Not only did this allow students to work with other students, but it also encouraged every student to provide input and be heard. In cases where redistributing the groups was not feasible, the instructor had more focused conversations with the groups to clarify project expectations and role requirements.

Client Perspective The wide variety of student combinations working together throughout the semester seemed to prove a valuable course design strategy to ensure that students were able to interface with as many personality types or skill backgrounds as possible. This experience mirrors the frequent changes in project vision and team members that they will encounter in future projects, post-graduation. Although reassigning groups when teams did not function well together might have been in the best interest of the students within the course, that is not always possible in real-world situations within the workplace. You sometimes must work with the team you are given, even when the team is not operating optimally. In these situations, a key skill to possess is the ability to determine and implement strategies that will help the team work more effectively together.

Meaningful Reflection

In authentic learning environments, instructors provide opportunities for students to reflect on their learning process. Reflection enables learners to analyze their learning process and improve metacognitive skills through a "conscious exploration of one's own experiences and thought process" (Silver 2013) in order to make improvements in the subsequent learning and/or performance contexts (Boud et al. 1985; Herrington et al. 2014; Schön 1987). By reflecting on the process, learners can identify strategies for approaching similar problems in the future or discover gaps in their learning that need to be addressed (Bolton 2010; Schön 1987). While reflection should be an ongoing process, it is important to design opportunities for structured reflection exercises within an authentic learning experience.

Course Design Strategies The instructor designed a variety of tasks throughout the semester to encourage students to reflect on their learning process. The reflective tasks within this course included weekly discussion activities, which encouraged students to apply theoretical concepts to their own project tasks, assess their own learning process, and compare their ideas and thought processes with other learners throughout different project design stages. In these discussion activities, students were asked to reflect on the readings, discussions, and the main project design, and to make connections between these activities. These tasks were designed to help develop the students' metacognitive skills related to the instructional design process. For example, students were placed in groups to recommend instructional strategies to address each of the instructional objectives. To prepare students to accomplish this task on their own, during the prior week, the instructor guided students through determining a smaller set of instructional strategies by assigning a textbook activity and practice exercise. This exercise related to a content area that the students were more familiar with (e.g., history, technology, etc.). Structuring the activity in this way made the information a bit more relevant to the learners and built on their prior knowledge before asking them to apply this knowledge to the broader client project. In addition, synchronous online meetings with the course instructor and the teaching assistant encouraged the students to discuss their instructional design

decisions, confirm client expectations, and brainstorm solutions for various design challenges to bridge gaps in their learning (Bolton 2010; Schön 1987).

For the final assignment in the course, the instructor designed one last reflection activity. The instructor outlined everything that the students had accomplished over the semester, ranging from "applied a theoretical model to enhance motivation in instruction' to "developed a fully fleshed out visual storyboard suitable for including in a portfolio." The instructor asked students to reflect on each of the outcomes and discuss what they learned from their experience. Students were to write a short essay detailing their key takeaways and what they might do differently on a future project. The students shared their reflective essays with their peers. Using this instructional strategy allowed students to deepen their understanding by making connections among the many learning experiences that occurred over the semester (Silver 2013). In addition, conducting this activity in the discussion forum allowed students to share their experiences with others. Not only were students able to "explore their own experiences" (Silver 2013), they were also able to learn from each other's learning process, which should strengthen the student's metacognitive ability.

Student Perspective Throughout the course, the discussion activities provided opportunities to reflect on the week's concepts. The instructor designed the discussion questions to integrate the weekly content with the students' prior knowledge and experiences, resulting in a deeper understanding of the material. During the final week of the course, the instructor asked students to take some time to reflect on the client process, the discussions, and the activities completed in class: What will be your key takeaway? What would you do differently next time? Similar to a team debriefing at the conclusion of an instructional design project, having students complete the reflection as a discussion provided peer-to-peer interaction and assessment of the authentic learning experience and identified strategies that could be applied to similar problems (Bolton 2010; Schön 1987), thus connecting theory to practice.

In the final reflection activity, most students noted how each of the class activities coupled with the real-world client project brought a different perspective to instructional design than they had experienced before. The client project challenged the students' ability to understand the theoretical approaches to learning as well as develop a practical knowledge of instructional design. One student referenced the popular education tenet commonly attributed to Confucian philosopher Xunzi: "I hear and I forget, I see and I remember, I do and I understand" to describe her experience of the class. This student, in particular, felt that activities completed in the class and the client-based project encouraged a deeper level of learning than other typical course projects. Furthermore, in completing the final reflection assignment, the student was able to articulate how her thought process and learning changed over the semester, a key metacognitive skill (Silver 2013).

Client Feedback The students' end-of-semester reflections were extremely valuable for the client in terms of short-term feedback and long-term planning for the future. Hearing from the students about their own experience helped the client understand how the frequent changes in timeline affected the students' experience. Future collaborations can take the weekly assignments and individual steps into account, rather than simply focusing on the end product.

Authentic Assessment

In authentic learning environments, the assessment should be integrated within the activity itself (Herrington and Herrington 2006). For example, students may create a *polished product* as the ultimate outcome of an activity (Herrington et al. 2014). These products should be "valuable in their own right rather than as preparation for something else" (Herrington 2006, p.6). A *polished product* helps to promote the learners' ownership of their learning through exploring the project, collaborating with project stakeholders, and reflecting on the learning process (Nikitina 2011).

Course Design Strategies In this client-based course, the final product was to create a fully fleshed-out design document for the mobile learning modules, including a high-fidelity storyboard detailing all of the instructional activities. In addition to identifying appropriate strategies to deliver the instructional content, the students had to consider the design and usability aspects of the visual interface. To accomplish the final product, the instructor employed a scaffolding method in the course that gradually released responsibility from the instructor to the students (Fisher and Frey 2013). This methodology gave the instructor the ability to move from the teacher-asmodel approach to students taking ownership of their learning (Nikitina 2011). At the beginning of the semester, the instructor intentionally placed students in groups and outlined specific tasks that each group needed to accomplish. At the end of the semester, each group was responsible for outlining and meeting each of their milestones. For example, in the first two weeks, students were assigned to view the client videos and documentation and write specific learning objectives for the project. By the latter half of the semester, the student groups were responsible for brainstorming, selecting, and refining a variety of instructional strategies aligned with each of the objectives as well as designing the visual interface of the mobile app and outlining additional questions that needed to be answered by the client. Finally, at the end of the semester, the instructor assigned two students to serve as "document

editors" and integrate all of the content drafted during the semester into one cohesive document for the client. These assignments shifted the ownership of learning from the instructor to the students.

Additionally, the instructor stressed the importance of the final product for the students' personal portfolios, adding extra value and real-world relevance to the final product (Herrington 2006). In addition to the written documentation, a face-to-face client presentation of the final deliverable was scheduled. Unfortunately, due to extenuating circumstances and time conflicts, a virtual client presentation was not possible.

Student Perspective The instructor assigned two students to serve as final editors of the design document. Since so many individuals worked on various pieces of the design document, the editors ensured that the final product was a "cohesive" document written in one voice. The editors also provided an overview of the structure of the design document and a rationale for the design decisions to the client. The process of taking all of the information and creating the overview document challenged the two students to consider the overall scope of the project along with making specific recommendations for the actual development of the product. After completing the final design document, the entire class had the opportunity to provide feedback. This activity resulted in a detailed, professionally formatted document similar to what an instructional designer in the field would provide for a real-world client.

For the final presentation of deliverables to the client, one local student was able to attend the client presentation and was able to add the student's perspective. For this student, participation in the final presentation to the client was extremely valuable as it provided feedback on the work created throughout the semester from a different perspective other than instructor and peers. The feedback was provided to the rest of the students in the course but for similar projects in the future, a virtual meeting that included more students would be highly recommended.

Client Perspective The in-person meeting with the instructors and student at the end of the semester pulled back the curtain on the process of the students' construction of the design plans. Although this experience offered the students a glimpse of how projects with future clients might play out in terms (and sometimes lack) of organization on the side of the client, it was determined that both groups would benefit from more frequent check-ins with each other, a clearer picture of desired outcomes, and most importantly, a better understanding of the audience of the eventual product. During the final phase of the project, the client reexamined their ideas of the user group for these types of micro modules. Would the modules serve as a guide for the general public on the essentials of a pitch? Should the modules be aimed at potential inventors working on their own pitches? Or should the modules help prepare competitors for future pitch competitions? During the next phase of the project, the client will have more internal discussions to determine the level of audience which these modules might best serve and how we can clarify those ideas internally for future collaborations with students.

Final Reflections on Overall Course Design

The overall structure of this asynchronous online course aligns with the authentic learning design framework proposed by Herrington et al. (2010) with the overlapping elements of Tasks, Resources, and Supports. The learning task is central to the development of an authentic learning experience. Herrington et al. (2010) note that the "best forms of authentic learning tasks are those that are ill-defined, open-ended, quite complex, and which lead to a polished product" (2010, p.120). Working with the client to develop a complete design document which could then be handed over to a developer fits all of these criteria. The resources provided in an authentic learning experience should come from a variety of sources and "represent the knowledge to be acquired" but the information provided is usually more than is needed and it is up to the learner to decide how to engage with the resources (pp.123-124). In this case, the students had written documentation provided by the client outlining effective pitch strategies, slideshow presentations detailing how to create a "pitch deck," videos of actual participants in previous pitch competitions, as well as links to online resources for interface and e-learning design, storyboarding, design documentation, and general instructional design resources. The students had to sift through each of these resources and determine the most salient pieces of content to include in the final product. In terms of supports, the instructor must scaffold the students by monitoring the process and providing additional help and feedback when needed. Since the students were novice instructional designers in this course, the instructor provided additional support to clarify client expectations, discuss potential design decisions, and help the students consider possible obstacles or challenges. In addition, the instructor provided encouragement when the students began to feel overwhelmed with the ill-defined problem.

Instructor Perspective This was a very challenging course to take on purely online–from both the instructor and student perspectives. Typically, online instructors will have most of the weekly content laid out at the beginning of the semester so that they can devote the majority of their time to facilitating the activities each week. For this client-based project, the weekly content would change depending on what was received from the client each week. For example, the instructor might have scheduled a specific week for the students to

review the client materials and develop the learning objectives, but the client needed additional time to gather and refine the specific documents for delivery. In this case, it was important to have back-up plans and to stress to the students from the beginning of the semester that they would have to be flexible in their weekly tasks and expectations. Of course, the last-minute receiving of information from the client is typical of the real-world experience, and this served as a "teachable moment" for the students as well.

Student Perspective Several times throughout the semester, the instructor, concerned that students were feeling overwhelmed, would check in with the students to "take the temperature of the class," but the feedback posted in the final reflection activity was very positive, with student comments noting how the project helped them connect theory to practice and mirrored the experience of working in industry:

"My key takeaway is understanding how the process of instructional design works in a practical sense. I know we've had a lot of theory and practice, but having this experience of putting something together, from the ground up, for a real client put all the pieces together in a way that I don't think a class project could have done."

(Student 2, Course Reflection)

"The biggest takeaway for me was tailoring the instruction towards a particular client and taking into consideration the learners they intended the instruction to be for, the message they hoped for us to convey, and the constraints of the project. Up to this point, I had designed instruction with my "ideal" setting in mind, but this course helped me to see what it would be like to work for a client, and them set the agenda."

(Student 3, Course Reflection)

"This experience made me feel like I am working as an instructional designer for a project in a company. A lot of collaboration and creativity was involved." (Student 4, Course Reflection)

Client Perspective For this project, the members of the School of Innovation were in the same place as the graduate students: at square one, trying to tackle this new, unclear challenge. The opportunity to become someone's "client" was finalized quite close to the first day of the semester. The course instructor and the students were incredibly patient through the growing pains of this new classroom endeavor. With each decision, the I-School needed to consider the experience of the designers (graduate students), the subjects of the online modules (previous participants and judges), and the learners (users of the app). Throughout the semester, the I-School provided

information to the class as it became available. The Dean of the School of Innovation recorded three videos as background material: I-School background and expectations of the project, a discussion of the stages of the commercialization process from idea to marketplace, and finally, a quick economics lesson. These videos served as an introduction to the students for the client, the project, and the context of the world of commercialization. Other items had to be gathered by the I-School throughout the semester, so the students received articles, competition information, and further product specs later than hoped. Although this gave students a very realistic example of working with a real-life client, who might change their mind or provide late information, it was most likely a stressful classroom experience.

Lessons Learned

The partnership between the School of Innovation and the Educational Technology program proved to be a valuable learning experience for both groups. Since this was the first time partnering on a project of this nature, the course instructor, teaching assistant, and client representative identified several "lessons learned" that should be valuable for future collaborations. From the instructor perspective, designing an online, asynchronous authentic learning experience required more time devoted to weekly preparation and facilitation than the typical online course; however, the ability to highlight the nuances of instructional design work and provide the studentclient interactions resulted in a more meaningful learning experience. This course served as an advanced graduate seminar that encouraged the students to connect the theory learned in previous courses to the practice and processes of true instructional designers. It was apparent that highlighting the use of the final product as a sample for their portfolio was valuable to the students since they typically do not have the opportunity to work with an outside client. Using virtual communication and collaboration tools such as Skype and Google Docs reduced the "distance" among students and facilitated teamwork. Assigning project roles (e.g., project manager, instructional designer, visual designer, editor) streamlined the group process, and creating reflection opportunities within the LMS encouraged the students to link the day-to-day issues they were dealing with to the larger issues in the field (e.g., designing for different audiences, integrating adult learning principles, making mobile learning recommendations).

This experience served as somewhat of a "proof of concept" for the I-School. The project encouraged the client to clarify their goals and document their specific needs as well as consider the importance of structuring information for instructional purposes. The I-School plans to develop a series of online modules using the same template developed by the graduate students and expects to partner with future instructional design courses. To enhance future iterations of this course, the authors recommend more frequent check-ins with the client to confirm scope of content, having students serve as primary client contacts, and scheduling time to "field test" the materials before submitting the final version to the client. These recommendations, coupled with the instructional strategies determined to be most effective during the first version of the course, should enhance the design of future courses and result in more meaningful learning experiences for both the students and the instructors.

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