2017

Taking university business courses online: An instructional designer's perspective

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Abstract

This report details an instructional design project for the College of Business (COB) at the University of Northern Iowa, an average-sized Midwest university. During the project as an instructional designer, I converted an existing traditional face-to-face business readiness program (Business 1000, 2000, 3000, & 4000) to online/flipped/blended courses using the Blackboard Learning Management System. The process involved working with faculty, program heads, students, and the staff of the COB with the intention of lowering the technology bar of intimidation enough to integrate it with the pedagogy needs of the courses.

Taking University Business Courses Online:

An Instructional Designer's Perspective

A Graduate Project Report

Submitted to the

Division of Instructional Technology

Department of Curriculum and Instruction

In Partial Fulfillment

Of the Requirements for the Degree

Master of Arts

UNIVERSITY OF NORTHERN IOWA

by

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March 2017

This Review by: Zachary P. Benton-Slocum

Titled: Taking University Business Courses Online: An Instructional Designer's Perspective

has been approved as meeting the research requirement for the

Degree of Master of Arts.

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Introduction

Students change from generation to generation, so does the way they learn and interact with the world. It becomes important that faculty and staff keep up with these changes to best address their students' needs. Students are more mobile, they value relevance, and they are masters of online access. This is the documentation of how business professors bent their course delivery to meet these needs both online and face-to-face. It is the tale of the challenges and conquests of a young instructional designer brought a 19th-century business program into the 21st-century.

Purpose

This report details an instructional design project for the College of Business (COB). During the project as an instructional designer, I converted an existing traditional face-to-face business readiness program (Business 1000, 2000, 3000, & 4000) to online/flipped/blended courses using the Blackboard Learning Management System. The process involved working with faculty, program heads, students, and the staff of the COB with the intention of lowering the technology bar of intimidation enough to integrate it with the pedagogy needs of the courses. Faculty, staff and students showed interest in strengthening communication, accountability, and overall transparency.

Setting

This project was developed for the College of Business at the University of Northern Iowa (UNI). UNI is an average-sized Midwest university. The COB had approximately 2,016 students with 126 faculty and staff, many of whom commute to campus. This lead to attendance issues. Due to this fact, there was a push from both faculty and students for using multimodal, flipped, and online courses for the college.

The courses that were redesigned were Business 1000, 2000, 3000, and 4000. Business 1000 and 2000 are mandatory courses for all COB students. In Business 1000, topics include; time management, StrengthsFinder, phone and email etiquette, and a variety of other soft skills. 2000 involves applying those lessons to interviews (both mock and authentic), building and presenting a resume, and other methods of selling yourself to an employer. They deal with four topics; communication and presentation skills, writing and reasoning skills, organizational awareness, and professional attitude. After completing any two of the four topics, the students were moved from course sequence 3000 to 4000.

Goals for the Project

The transition to move to an online learning environment was driven by faculty, staff and students' desire for the program to be more accessible, flexible, and to have more accountability. The COB was not using the full potential of the University's Learning Management System, Blackboard. The Business readiness program only used it as a grade book. The University's information Technology Services (ITS), COB, and the head of the business program knew that expanding their use of the Blackboard management system could have some real benefits for their students, faculty, and staff.

I began my project by selecting an instructional design model (ADDIE) as a guide for this project. According to ADDIE, identifying the problem is the first step for analyzing the contest. The goals were already been identified for me. I needed to convert standard face-to-face curriculum to online education. I met with the faculty, staff and students. Based upon my analysis of their written and verbal feedback I identified the following steps to meet the problems of the project:

1. Based upon the content, choose the right pedagogical approach for each of the courses;
2. Build a basic course template that would match the pedagogical choice for the introductory courses;
3. After we had a working model for the introductory courses, meet with the online independent courses faculty and staff to discuss the pedagogical approach, content, and make necessary changes to the template;
4. Develop a template for the online independent courses while meeting the needs of the pedagogical approach and the courses' content;
5. Conduct small-group or one-on-one training with the faculty and staff on the basics of using Blackboard;
6. Incorporate into the design a virtual place where assignments could be turned in and checked for plagiarism
7. Create a communication system to communicate with students when events were coming up, due dates, and when work is past due

Problem identification. For the project to be successful I, the designer, needed to identify the core problems before I could start developing the courses. I identified 5 problems from my conversation with faculty, staff, and students';

1. Faculty and staff had problems communicating with students effectively about their success in submitting assignments and completing assessments;
2. There was a lack of accountability in recognizing student assignment completion on the part of both the students and the faculty;

3. Faculty and staff had problems communicating with students effectively about events that affected only a select portion of the student population;
4. Both faculty and students desired greater structure continuity between courses;
5. Faculty and staff had little background knowledge in using the school's Learning Management System, Blackboard.

Communication. Faculty and staff had problems communicating with students effectively about assignment requirements, due dates and methods of submission. Students often complained that they didn't understand when things needed to be completed. Email was an ineffective tool because of the number of students involved and the need to select which students would receive the messages was overwhelming to faculty and staff. They were also concerned that if email was used as the sole form of communication with their students, the students would start ignoring them and miss important messages about events and announcements.

Accountability. The program had massive issues with accountability. All paper-based assignments were physically collected and graded, so there was always the possibility for error. Assignments could go missing or just never be submitted. Either way, if the faculty or staff didn't have the assignment, it was labeled missing. This resulted in students having to redo assignments. To make the issue worse, it took a long time to grade papers using this method. Students might not have known for weeks that they missed an assignment. Issues like illegible handwriting, plagiarizing, general storing and managing all that paper slowed grading down substantially.

The courses also had a wide variety of students from different majors, and communicating in an effective way became an issue. Sending the information to all

students wasn't working because the steady stream of emails became too much for students and was largely ignored. Most students relied on what they heard in person from others in their major. This led to miscommunication among students and negatively affected attendance at non-academic events (E.g. job fairs, lectures from experts in the field, trends and issues in a major,).

As students progressed through their classes, students and faculty wanted the computer interface to be have the same look and feel throughout. From the students' perspective, they didn't want to have to worry about relearning the course structure each semester. Faculty didn't want to worry about designing a new structure for each class. With a standardized interface, turning in assignments, getting important news and alerts, and interacting with course material would become second nature by the second course.

The faculty and staff lacked the background knowledge to use or design learning spaces in Blackboard, and didn't have the operational knowledge to properly use the program to its full potential. They wanted to find a way to lower that technology barrier without having to rely on the university's Information Technology Services. Lowering that barrier was key to getting them past the fear of using the Blackboard for more than a place to post syllabi and in allowing their students more access to course knowledge.

The Project as a Solution

The solution to this collection of problems in communication, accountability and structure resided in a Learning Management System (LMS). Blackboard provided a medium for faculty and students to communicate. Blackboard was equipped with digital submission boxes and alerts and which were the perfect solution for the assignment

accountability problem because they clearly showed which assignments had been turned in, and if any were past due. The calendar tool allowed students to choose which events mattered to them and to add the course calendars to their personal calendars. This calendar connection provided students with the ability to tailor the content they wanted and help them establish goals and deadlines for themselves. The template of the general layout of all four courses helped construct a common language and logic for locating needed information. This structural layout gave the faculty and staff the confidence to migrate to a more online setting. Faculty and staff training and good online education standards and practices helped lower the learning curve and hesitation about using Blackboard.

Literature Review

My literature review is focused on the ADDIE instructional design method, TPACK, and technology integration with an emphasis on engagement and overcoming technological barriers. ADDIE was used for both the instructional design and management framework for this project. It was used to engage faculty, staff, and students and continuously evaluate and evolve the course. The TPACK framework focuses on connecting technology with the right pedagogy and content. This framework played an important role when we integrated technology (Blackboard) into the course as a means of delivering content, organizing the content in a meaningful way, and strengthening communication between faculty, staff, and students.

ADDIE

The ADDIE (Analysis, Design, Development, Implementation & Evaluation) divides instructional design into sections that are formatively evaluated as each phase is

completed. Use of this method has been proven to raise the average GPA and learner engagement (Shibley, Amaral, Shank, & Shibley, 2011). For these reasons, I chose to use this framework for the project. In the Analysis phase, I clarified the instructional problems and objectives, and identified the learning environment and learner's existing knowledge and skills. In the Design phase, I focused on learning experiences around the objectives and outcomes, assessment instruments, exercises, content, subject matter analysis, lesson planning and media selection. In the Development phase, I created and assembled content assets blueprinted in the design phase. I developed procedures for training faculty in preparation of actually using the system. In the Implementation phase, I taught faculty and staff how to engage the course curriculum, learning outcomes, method of delivery, and testing procedures. Faculty used this knowledge to implement the courses. I worked as a troubleshooter for the issues faculty, staff, and students had using the technology. Lastly, the Evaluation phase consisted of two aspects: formative and summative. Formative evaluation was present in each stage of the ADDIE process, while summative evaluation was conducted on the finished instructional program (Ozdilek & Robeck, 2009; Shibley, Amaral, Shank & Shibley, 2011; Ngussa, 2014; Hsu, Lee-Hsieh, Turton, & Cheng, 2014)

Analysis phase.

The first step in the Analysis phase was to understand the faculty, staff, and students' backgrounds, learning goals, objectives, and motivations. Understanding the needs of the content, learning environment and students', faculties, and staffs' access to technology was required to plan for a successful project (Hsu, Lee-Hsieh, & Turton,

Cheng, 2014). The students' learning characteristics played an important role in the decisions that were made during the process (Shibley, Amaral, Shank & Shibley, 2011).

The format of my needs analysis was similar to that suggested by Hsu, Lee-Hsieh, Turton and Cheng (2014). I conducted individual and small group interviews to analyze learner characteristics, motivation, access to technology, pedagogical approaches, and the desired learning outcomes (Shibley, Amaral, Shank & Shibley, 2011; Ngussa, 2014). Based upon the interview results, learning outcomes were developed along with learning objectives that supported the faculty's' stated goals (Hsu, Lee-Hsieh, Turton, & Cheng, 2014; Ngussa, 2014).

Learning outcomes are critical to students' motivation (Croxton & Chow, 2015). (Impactful and measurable outcomes were the first steps in constructing learner buy-in) COB students needed to understand why it was important to master the course's content. Student motivation and the relevance of the course material should support learning outcomes, objectives, and goals, but need to be delivered in a way that gives students practical reasons to know the material. "Relevance is closely associated with motivation to learn." (Ozdilek & Robeck, 2009). Students were required to actively interact with course materials. After each unit, students were required to reflect on how the course materials advanced them in their desired field and wrote a short paper on the insight that was gained through this reflection.

Design phase.

In the design phase, learning experiences and assessments are planned to support learning goals/objectives/outcomes. (Ozdilek & Robeck, 2009) Outcomes need to be measurable and the experience/assessments need to help the learner achieve

them. (Hsu, Lee-Hsieh, Turton, & Cheng, 2014) Understanding the learning outcomes and developing measureable assessments takes a huge amount of time and effort, and is seen by most designers as the most important few steps in designing a project. (Ozdilek & Robeck, 2009)

During this phase, I worked with the program head to choose the pedagogical approaches for each of the courses. The choices for these approaches included flipped learning, blended/multi-modal learning, or asynchronous online learning. These decisions were based upon the learning outcomes for each course. (Ngussa, 2014) Based upon the university's available resources, I suggested that we use the Blackboard learning management system to deliver course content. (Shibley, Amaral, Shank, & Shibley, 2011) The program head along with faculty and staff agreed.

After the pedagogical approach was chosen, learning goals, objectives, measurable outcomes, and what technology was going to be used to support those choices needed to be reviewed by both the designer and anyone that had input on the project. Tzu-Chuan Hsu, Jane Lee-Hsieh Michael A. Turton, and Su-Fen Cheng (2014) suggest that a panel or committee evaluate this phase. The panel or committee would understand what it would take to be successful with the content, medium/technology, and the pedagogical approach. The designer needs to be a part of this committee or panel. This panel design was exactly what we had with faculty, staff, and myself. As a group, we agreed it was the right technology for the learning goals/objectives/outcomes and the pedagogy that was desired.

While formatively evaluating the design phase, the learning environment, pedagogical approach, learning experiences, technology, and assessments needed to

be supported by the needs analysis. This environment needs to support the pedagogical approach, content, and students' background. Make the technology fit the pedagogical approach, content, and students' backgrounds, not the other way around. (Hsu, Lee-Hsieh, Turton, & Cheng, 2014) All of these choices will impact the development phase but this information needs to take into consideration the background of the learner. (Shibley, Amaral, Shank, & Shibley, 2011)

Development phase.

In the development phase, the designers construct learning materials, learning experiences, media, technology, assessments, and the training required to use the technology. Most designers don't consider this phase critical because all of the decisions were made in the first two phases (analysis and design). (Ozdilek & Robeck, 2009) This phase also depends on organizing the finished learning experiences (e.g., assessments, media). (Hsu, Lee-Hsieh, Turton, & Cheng, 2014)

At this point I constructed the content using Blackboard. While developing the courses, I kept learner engagement in the forefront of my mind. (Croxton & Chow, 2015) In blended/ multi-modal, flipped, or online courses it can be difficult to know whether the materials are keeping learners fully engaged. We measured this through periodic assessments. Beyond requiring students to fully master the content before advancing, we required them to reflect on how these skills would affect their professional lives. (Hsu, Lee-Hsieh, Turton, Cheng 2014; Shibley, Amaral, Shank, & Shibley, 2011)

Implementation phase.

This is the phase where educators and designers spend the least amount of time and energy (Ozdilek & Robeck, 2009). The implementation phase involves simply delivering the learning experience for both the teacher and the student. All of the hard decisions have already been made. This step involves training the teachers and then following the pedagogical approach already designed for the students. Students engage in a learning process where clear learning expectations (i.e., learning goals/objectives/outcomes) are defined and learning activities are completed to achieve those expectations. (Hsu, Lee-Hsieh, Turton, & Cheng, 2014)

During the implementation phase both the faculty, staff, and students needed to know how to use Blackboard. The students were already users and the design committee agreed that the students didn't need special training. Rather, the students wanted the templates to have clearly expressed and intuitive interfaces. The template and the logic behind the template was introduced during orientation, and reinforced during the first few speakers/events/etc. (Hsu, Lee-Hsieh, Turton, & Cheng, 2014) This prepared the students for success and defined the level of commitment needed to achieve the minimum outcome. Baraka Manjale Ngussa, the Extension Director, University of Arusha, Musoma Centre, pointed out that using these clearly-defined expectations for both the educator and student (along with ADDIE as a whole) will significantly increase the performance level of the course and decrease the failure rate among the learners (2014). If students still didn't understand how to access classroom material, they would be trained on a case-by-case basis with a staff member of the university.

When working with the educators I was going to need to learn what they needed to know in order to operate the templates. I started slowly collecting information via email. I had them log into the template, evaluate the layout, and give me general feedback weekly. I also had them converse with their colleagues about their thoughts before they sent me the weekly feedback. I wanted them to give me feedback this way because it forced them to interact with Blackboard frequently and would therefore help change their general perception of the program. (Yau, Cheng, & Ho, 2015) Having them communicate regularly with colleagues jumpstarted a learning community (Yau, Cheng, & Ho, 2015). I was also able to get them in the habit of checking with their learning community before they would come to me with questions. It filtered a lot of problems and gave the educators ownership over Blackboard. (Liu, Tsai & Huang, 2015)

From this feedback I was able to start finding areas where all of the educators were struggling, and issues the COB learning community wasn't able to solve. Knowing this, I was able to structure training to meet these goals. (Hsu, Lee-Hsieh, Turton, & Cheng, 2014) The big training events brought the community together to foster learning in pairs and allowed them to analyze the new information, evaluate how it would impact the course, and create solutions for the problems the community was having using Blackboard. All big training sessions were learner-focused and had a direct impact on how the educator interacted with the software. (Koh, J. H. L., & Chai, C. S., 2014)

Evaluation phase.

Successful evaluation must take place both during the development of the project (formative) and upon the project's completion (summative). Each of the previously described phases ended with a design committee reviewing the work and assessing

whether the needs of the phase had been successful. These assessments were implemented in a variety of forms (e.g., using checklists, alpha testing, committees). We chose to review each phase using a design committee. (Hsu, Lee-Hsieh, Turton, & Cheng, 2014) Formative assessments can be time consuming and frustrating. For this reason, the evaluation phase is most likely to remain incomplete. (Ozdilek & Robeck, 2009)

The summative evaluation is where the designer should start looking at what worked and didn't work. (Hsu, Lee-Hsieh, Turton, & Cheng, 2014) User feedback, pedagogical approach, and technology need to be analyzed and broken down into information to be used for the continuation of the design. Understanding why the new pedagogy/technology was beneficial determines whether the new approach is more fitting for the content or the students themselves. (Shibley, Amaral, Shank & Shibley, 2011) Professors Zehra Ozdileka and Edward Robeck (2009) believe that for a design to be a successful or continue being a success, this information needs to be used in the project's next Analyze phase.

Formative. For the formative assessment, I constructed a design committee to evaluate each phase of the ADDIE process to ensure that the outcomes of each step met the needs of the larger project goals. (Hsu, Lee-Hsieh, Turton, & Cheng, 2014) The committee was made up of the educators who were going to be teaching the courses and additional students and other professors when user feedback was important for the phase. (Lee-Hsieh et al., 2005) This was also an amazing environment to challenge the educators and their views of the course materials and how it met the overall goals of the course. (Ngussa, 2014) When the phase wasn't meeting the goals of the course, we

made measureable design objectives, deadlines and scheduled the next formative assessment before the committee meeting was complete. This would continue until the phase met the goals of the course, and the committee agreed that we were ready to move to the next phase.

Summative. While the formative evaluations were incredibly effective and successful, I never got to do a summative evaluation of the new course design. I wanted to sit down with the design committee and discuss what went right and what was going to change before the next semester. I would have wanted to meet with both the ITS support team and the design committee and review how the relationship was developing. If it hadn't changed I would then determine the steps necessary to repair that relationship. I was also eager to see the feedback from the students. Especially the students who were in their second year of the course. They would have had experience with both the face-to-face only version, and the new flipped/blended version. Unfortunately, I was only involved with the program for three months during the summer and four months during the first semester. Faculty and staff have continued to use my design but haven't kept records of the success of the program.

TPACK

Inspired by Dr. Matthew Koehler and Punya Mishra's (2009) approach to integrating technology, I decided to create a learning experience where we taught content using pedagogy that could be augmented through technology. Matching technology to the pedagogy, can promote engagement and create learning opportunities that are otherwise not accessible. (Liu, Tsai & Huang, 2015) TPACK is a framework that shows the integration of technological knowledge, pedagogical

knowledge and, content knowledge in learning. (Koehler & Mishra, 2009) The research of Carle, Jaffee, and Miller (2009), strongly suggests that TPACK leads to better student engagement and higher academic achievement.

The Blackboard Learning Management System, which was already being used by the university, supported our chosen pedagogical approach. It provided a multitude of delivery formats and fostered a learning community between the students and faculty. This gave the community the chance to begin sharing experiences, and finding value in different approaches with this technology. (Liu, Tsai & Huang, 2015) This final step enabled educators to see technology as something more than an add-on and that it needed to be treated with the same care as the content and pedagogy of the courses. (Koehler & Mishra, 2009)

Technology integration.

Technology integration has become simply a part of both our professional and personal lives and takes time and effort to overcome (Yau, Cheng, & Ho 2015). This becomes even more important to the classroom because proper technology integration has been shown to increase student engagement and raise the average GPA (Grade Point Average) of the student who uses technology (Carle, Jaffee, & Miller 2009).

Technology itself is not the answer. Technology integration needs to be tailored to the learning needs of individuals (Liu, Tsai & Huang, 2015) (e.g., individualized training, video series, or learning communities.) Most researchers agree that relevance is important when it comes to technology. (Yau, Cheng, Ho 2015; Eller, Lev & Feure, 2014; Carle, Jaffee, Miller 2009; Ertmer 2005) Technology will have the greatest effect on learners when it is part of their day-to-day life.

To overcome technological barriers, I chose to construct a small learning community. (Liu, Tsai & Huang, 2015) This provided both students and faculty with a support group for sharing experiences and finding solutions. The ultimate goal was to have them open the community and reach outside of the campus, but first I needed them to start working together. Eller, Lev & Feure (2014) recognized that knowing where and how others have struggled, failed, and found success helps grow unity and foster creative solutions. This is what I wanted for our community. They started seeing each other as assets and built trust in our learning community. Frustration with the program started to diminish, the anxiety about the pedagogical approach decreased and the technology stigma became non-existent. (Yau, Cheng, & Ho, 2015) I realized I was successful when the group started using Blackboard without being prompted and the learning community was including more instructors, staff, and students than were directly involved in Business readiness program.

Literature Review Summary

The models researched in this section (ADDIE & TPACK) had a direct impact on how I approached the project for the College of Business. ADDIE provided a framework for analyzing, designing, and developing the course. This also helped me set up a system to get faculty and staff excited to adopt pedagogy that matched the content for each course. The ADDIE process also enabled me to spot errors and other training needs before the courses were launched. With the TPACK research, we justified using the Blackboard Learning Management System because it enhanced both the content and pedagogy. We used technology integration methods that made the new technology a daily part of the faculty and staff's lives, making the technology relevant and

increasing the likelihood that the technology was going to truly be integrated. Lastly, I created and supported a learning community for COB faculty and staff. This allowed the faculty and staff to see each other as assets and made them stronger in using the technology and new pedagogical approaches for the courses.

Project Description

Project Background

Having introduced the instructional design elements, it is time to depict the journey that leads to an online interactive course in business. This experience began by working with the College of Business (COB) in Spring, 2013. The COB's faculty and staff were reviewing their undergraduate readiness program. It was decided that they needed to modernize their program so that it would run more efficiently and could be available online for their students in the near future.

The key to this transition would be using the university's learning management system, *Blackboard*. To optimize the features of Blackboard to best fit the needs of the course the curriculum needed to be restructured. The classes needed to be less lecture and more activity-based. Assignments needed to have a more student-centered approach to engage learners. Assessments needed to be quantified using digital rubrics. These modifications were all doable and it was my responsibility to make them happen.

Identifying Goals

I began by consulting with the program's director and discussing the vision of how their courses could be migrated into a digital environment. Her vision was comprised of three general goals:

1. Moving from a face-to-face classroom to a paperless flipped, multimodal, or online classroom environment
2. Developing a Blackboard template that would make the program more user-friendly for faculty and staff.
3. Creating a more effective communication channel between faculty and their students

The next conversation was with the faculty and staff who led the course. This team consisted of two staff members and four faculty members. Through interviewing them about their responsibilities and their pedagogical approach to the course, I was able to get a practitioner's perspective of possible instructional strategies. From this line of questioning I was able to build a foundation of understanding for this course.

The responsibilities for preparing, delivering, and evaluating the courses were delegated between team members. Each member was responsible for some aspect of the course: general contact with the student body, contacting speakers, organizing the job fair, course materials, instruction, and grading. I quickly realized there were a lot of moving parts. I needed to develop measurable goals based on the needs surrounding communication, foster accountability, nurture pedagogy that meets students where they are, and select the technology that best supported their needs. Together, we developed

goals that were similar to that of the program director. These goals can be seen on page 2.

I needed to determine the technology that would best fit the pedagogy of the content and could be used daily as a utility, not a barrier. I needed to construct a learning community around this technology. From the data I collected, I built training that made the instructors stronger educators and bolstered the learning community.

Determining the Appropriate Tools

Based upon my research, we needed to choose the pedagogy that best matched the content of each course; build a template that made course design more manageable; and determine the training needs of the current educators so that they might create and evolve their courses.

The team felt like it was important for their course to become paperless. This would remove the constant shuffle of papers and provide an efficient method for tracking completed assignments. Assignments could be submitted through Blackboard. Blackboard has a submission function that was commonly used by several courses in the college of business and university as a whole. The team liked the idea of the submission box. A template for an assignment folder was developed which incorporated an assignment description, title, and a dropbox.

Making the class more accessible to students who lived off campus or couldn't make it to lectures was also important to the evolution of the face-to-face business readiness courses (Business 1000, 2000, 3000, 4000). Many of the changes to the course allowed students to work from anywhere. Unfortunately, lectures and speakers

still required students' attendance because many of them couldn't be recorded due to legal issues.

As the class started to grow, faculty and staff noticed that the coursework in each of the readiness courses felt overwhelming and they feared that students would be discouraged when first starting the course. Showing them all of the assignments on the first day could just be too much. Blackboard had a function to solve this perception issue. Weekly units could be released on an as-needed basis. This way, the assignments could be parsed out gradually. As mentioned in the *Identifying the Problem* section of this paper, communication was a problem in the business readiness courses. Students complained that they never knew when events were happening, when assignments were due, and many announcements for the courses were missed. Incorporating a google calendar into the course solved all three of these problems. For the events it became clear, through beta testing, that incorporating a Google calendar was the best option for the courses.

Announcements could also be sent to the students on a weekly basis. This allowed faculty to let students know when a due date was close or if they had missing work. The announcements were used to promote general course information and only used sparingly. This prevented the dashboard screen from becoming unwieldy, and drew students' attention when something was posted.

Plagiarism was an important issue as well. Past students sold their work to new students or simply gave it to them for free. Faculty and staff needed a method for checking the originality of the assignments. UNI uses an anti-plagiarism program called *Turnitin*. This program matches text from a database of papers provided by *Turnitin* and

a collection of papers by UNI students. If the program finds a match, it is flagged. The faculty and staff can review the results to evaluate whether or not it is plagiarized. We were able to incorporate *Turnitin* into Blackboard as an included feature.

Adjusting to the Context

What was going to be time consuming was adjusting the material to match the pedagogy. The introductory courses needed to have automatic timed-release conditions, while the online independent courses used successive modules that were presented to the student as work is completed. Before the redesign, all that was asked of students was a brief summary of the subject of the module. This was normally a page or less. Together the faculty and I developed more reflective and deeper assignments that will help provide an authentic learning environment. From that decision the following learning opportunities were developed:

1. Students will reflect on each module, spending time discussing how the module impacted them on a personal and professional life
2. Students will participate in at least four on-campus events, one of which is a job fair, that have a direct connection to their major

The introductory courses differed from the online independent courses because of the need to meet in person while the other courses could be completed online. The introductory courses required numerous events, in-person group work, and major-specific soft skills that needed to be practiced in person. While some speakers could be watched online it was more important for these classes to be designed using a blended or flipped format. Students needed to learn basic skills and then gather face-to-face and practice these skills. After the in-person event, they would reflect on what they had

learned and how it impacted them personally and professionally. This blended learning pedagogy was well-supported by Blackboard and the functions it offered.

By virtue of the online independent courses being offered completely online there were different pedagogical needs. When students finished courses, they would receive certificates of completion and they could add them to their resume. Each of these courses was composed of four modules. The modules could be completed in any order. Students could work at their own pace and complete work when it fit into their schedules. All of the assessments were self-reflective papers. These papers were evaluated by the instructors leading the class. If the student didn't demonstrate mastery of the content, the student was expected to go through the module again and re-submit the reflection. Mastery was evaluated with a rubric that was developed by the faculty and staff. With that information, it was easy to see that the online-only format matched the pedagogy of the course and that Blackboard would provide the necessary components for the course's success.

Designing Courses

Once the resources were gathered, a plan on how content and lesson plans needed to change was developed, and what would be ideal for a rubric when grading reflections was created. I was ready to meet with my subject matter experts (SME's). I needed insight on how they saw the content, their students, and what success was going to look like for them and this course. As I was building blue prints of lesson plans, I needed to know I was headed in the right direction

I needed to construct a consistent interface for all the classes:

1. The opening page needed to be the same for all courses.

2. The administrative materials (e.g., syllabus and schedule) and content modules needed to be in consistent locations.
3. Modules needed to contain the subject-area content, the assignment sheet, the submission dropbox, and other necessary materials.
4. Information on completed assignments and assignment grades needed to be easily assessable.
5. Information on events, speakers, and other important gatherings needed to be readily available.

Most of the materials for the courses were provided but there were gaps in content that needed to be filled. Finding suitable learning materials that were credible and helpful for the students in achieving their learning outcomes became difficult. Faculty did not provide sufficient materials to complete the courses. It was difficult to follow up with faculty and staff due to their scattered schedules throughout the summer. I solved this issue by planning ahead, scheduling their time-off on my calendar, and by having weekly conversations with faculty and staff. The more I got to know the faculty and staff, the more information was shared and the easier verifying content became. Finally, I found that the more rapport I developed with the faculty and staff the more they seemed willing to engage in training and consider new pedagogical ideas.

Developing Content

It was determined that the introductory courses would be delivered using both *blended* and *flipped learning* pedagogy. The blended learning approach involves the students interacting with the course materials, concepts, other students, and instructor both face to face and online. Flipped classrooms delivers lectures (normally by video)

outside of class and shifts the focus of the class time on to activities (e.g. case studies, exercises, projects, discussions). The introduction classes are unique and it was determined by the design committee to use both pedagogies.

While the independent courses would use an online-only approach. This was agreed upon because the students taking these optional courses would need to be self-driven. Faculty and staff wanted to give students the opportunity to explore the topics that would be most beneficial to their specific majors.

I started designing the introductory courses first because the majority of the content was flipped classroom friendly. Both the head of the program and the faculty and staff had either a great article or/and YouTube video that explained the concepts nicely. These courses didn't include pre-recorded lectures. This was the first time that this strategy was being implemented and the lectures hadn't been recorded. Before this they would lecture or have a group discussion about the concepts (e.g. the importance of a good handshake, eye contact, dress codes for interviews.) and then give them the article or video as a kind of homework. By flipping the classroom, students would be required to complete things outside of class and class time would be spent applying the knowledge. This allows for less lecturing, and more time spent on application.

I worked with faculty and staff one-on-one to lesson plan for the flipped and blended pedagogical approaches. We focused on higher-order Bloom's taxonomy activities (analyzing, synthesizing, and/or creating). This is what would be the focus of in-person class time. After, they would reflect on the information and classroom experiences to write their self-reflection paper. Faculty and staff would evaluate the

reflection, run it through "*Turnitin*" and contact the students through Blackboard to let them know if they had shown mastery or not and how they could improve.

Helping construct the lesson plans went smoothly. I was able to organize content by gathering the articles, finding videos that were missing, and getting speakers recorded/edited/posted. I was given a list of credible sources and topics we were missing. It was my job to fill the gaps. While I realized this was not a typical assignment for an instructional designer, I didn't want a lack of content to be a barrier to the proper implementation of the program. This required me to read, watch and evaluate a lot of materials to find quality material to send to faculty and staff for their approval before I put it into the template.

I was also tasked with developing a waiver to legally cover the university, training the staff to record the speakers, edit the recording, building a space that allowed recording speakers to be posted, and post the videos. I worked with the head of the program to construct a waiver that would satisfy the College of Business. The department purchased a camera and the staff member selected to record the speakers had a working knowledge of how to operate the device. A small one-on-one training was held to show the basics of setting up a tripod, recording, transforming the recording, using Panopto to edit, and posting the video in the right location on Blackboard. The success of this training was assessed by having the attendees record a lecture and post it to a location that I had selected on Blackboard.

After gathering the insight and verified learning materials needed from the faculty and staff, the design phase was ready to be evaluated. I managed to gather the design team and go over the phase. It was a smooth formal evaluation because I worked with

the SME's so much that the faculty and staff felt like their ideas were driving the growth of the courses. Some even tried to take credit for ideas that I originated. That was OK because it nurtured their excitement about the new format and their drive to learn new pedagogy. There were minor tweaks to the timeline of content releases and they wanted to wait on choosing the pedagogy for their online independent course until they saw the introductory courses actually put together and operational. After reviewing the evaluation feedback on these courses, we would modify as necessary and choose a direction for online independent courses. Most agreed with me about the pedagogical direction that I choose for the independent online courses but we did not want to use those strategies until we saw how functionality of the introductory course in practice.

I wanted to get the templates constructed before I started training the faculty and staff, so, I selected a few videos on *Lynda.com*, a tutorial website, and sent them to the instructors of the course with the expectation they would be viewed in the next week. This gave me time to create the first drafts of the introductory courses. I followed up with each of faculty and staff members to ensure this was done. Most saw the *Lynda.com* tutorials as refreshers, but they gave the design committee a common language to use when discussing the program.

Class Materials

Faculty also wanted the course materials to be located in a similar location for each of the courses. To do this we decided to make the course dashboard the entrance point for all users. The sidebar needed to have the same look and feel as well. I used the blueprint that the educational technology courses at UNI used.

Student view. The student view is the most common view. The opening screen is typically the Dashboard which has announcements, calendar, a to do list, and alerts (see Figure 1). A variety of course tabs used to navigate reside in the left-hand column:

- **START HERE** have administrative materials. This Included meeting guidelines, code of conduct, syllabus, professional skill sheet, schedules, and other information needed for the course.
- **Course Content** contains the content for the current week and past weeks. This is also where students are assigned homework and where they turn in assignments.
- **My Grade** section is where users can see their current grade and if they have any missing assignments.

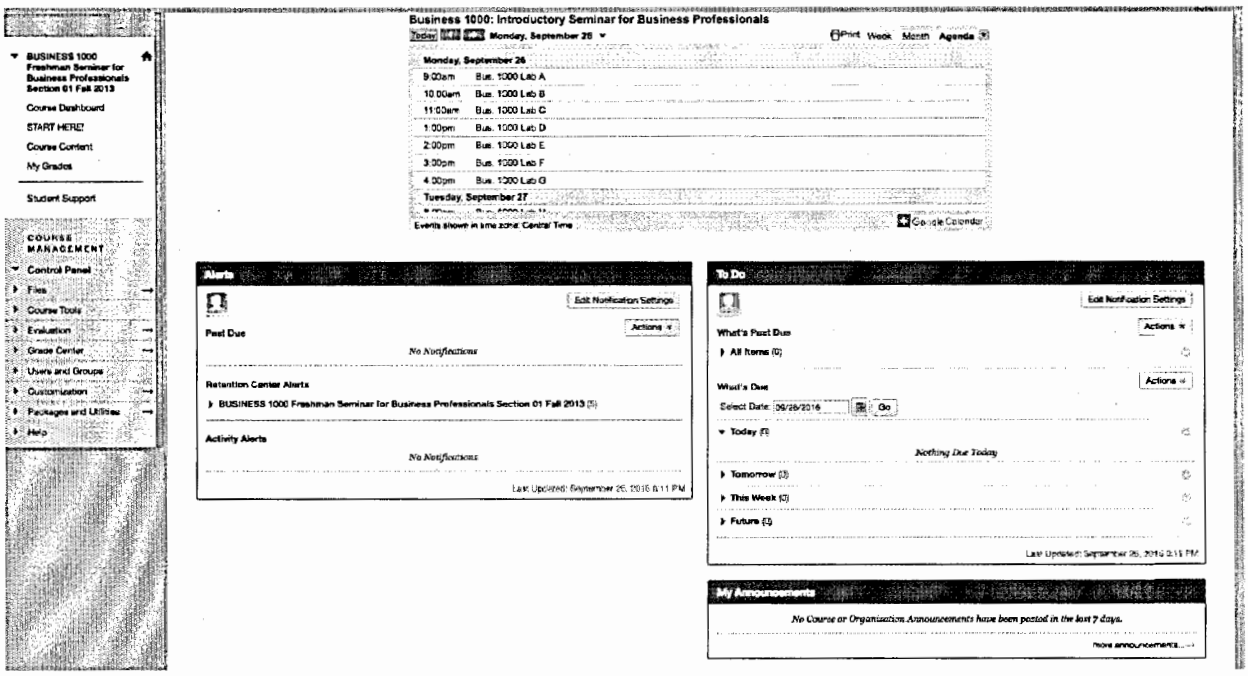

Figure 1. This is a screenshot the business 1000 course homepage.

Faculty and staff view.

Faculty and staff have the option to see the course in either the editor view or the user view. In the editor view, they can add and subtract modules, folders, and content. In the user view, they can see the course as a user to ensure they know how the course will be seen by students. This is important when developing course materials to only reveal refined content.

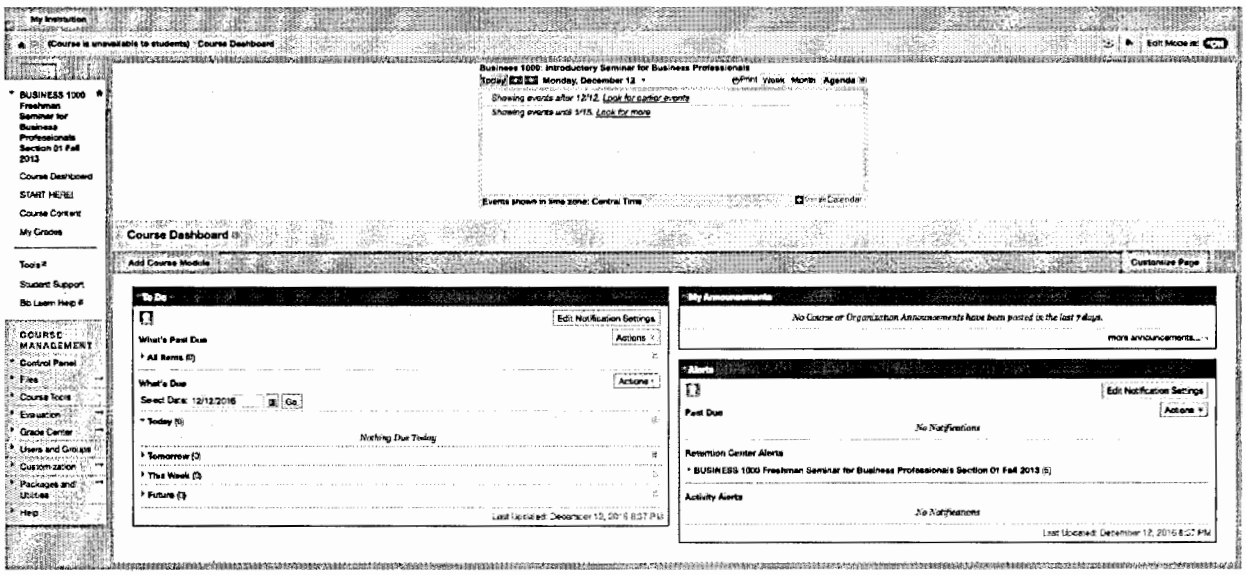

Figure 2. This is a screenshot the business 2000 course homepage.

Refinement

Once we had a working model for the readiness courses, refining the template was necessary to ensure implementation and launching the course went smoothly. Faculty and staff wanted important announcements to be at the top of the page and due dates at the bottom.

The announcement function was new to the program. Faculty and staff were excited about the idea of communicating with the student body. They wanted to post

announcements, due dates, event dates, and a plethora of other materials. This overwhelming amount of information would dominate the page. I wanted the faculty and staff to see how it would look on this platform. In an effort to populate the announcement section, I asked them to add a month's worth of messages. This required the faculty and staff to communicate with each other, and establish who would be in charge of the announcements to students. This also prompted a discussion on what was considered to be an announcement.

The opening page exploded with announcements. We realized that this number of announcements was becoming unwieldy. This lead to introducing the Google calendar where we could store event information. By adding a Google calendar add-on (a program used by everyone), we could enter all of these events and let students choose what was important to them. Then they could add events directly to their personal calendars. It was intuitive and the users loved it. Most importantly, it allowed the announcement section to be saved for only important information.

Evaluating the Course Template

The feedback from the faculty and staff was positive but I wanted feedback from students who had taken the course before. Fortunately, there were a few students on campus taking summer courses and who had professional relationships with the faculty and staff. I met with the students and had them review the course templates. They only had positive things to say. This didn't help me edit the template, but it made me feel like it was ready to be seen by the design committee.

Before moving onto the online independent courses, the design team wanted to formally evaluate the course dashboard template for the introductory courses. With the

opportunity to work so closely with the faculty and staff, I was able to meet their requests. These evaluation results, combined with the feedback from students, made the design team confident enough to move to designing the online independent course dashboard template.

Creating the Independent Study Course Template

The design committee felt the Introductory course template would be useable for the independent study course. Faculty and staff appreciated the sidebar navigation. Unfortunately, there wasn't much course content developed. I decided that I would help them develop the materials. I worked with the faculty and staff who normally taught each section to ensure the content I was developing would meet their learning outcomes.

The independent courses were available asynchronously online. Therefore, we could provide four modules simultaneously so that students could freely work on them as they had time. I wanted to keep the navigational sidebar so that the logic of how to locate material wouldn't need to be explained again. The design committee loved the layout of the new template for the online independent courses and cleared me to start developing content for all four courses. The layout can be seen in Figure 3.

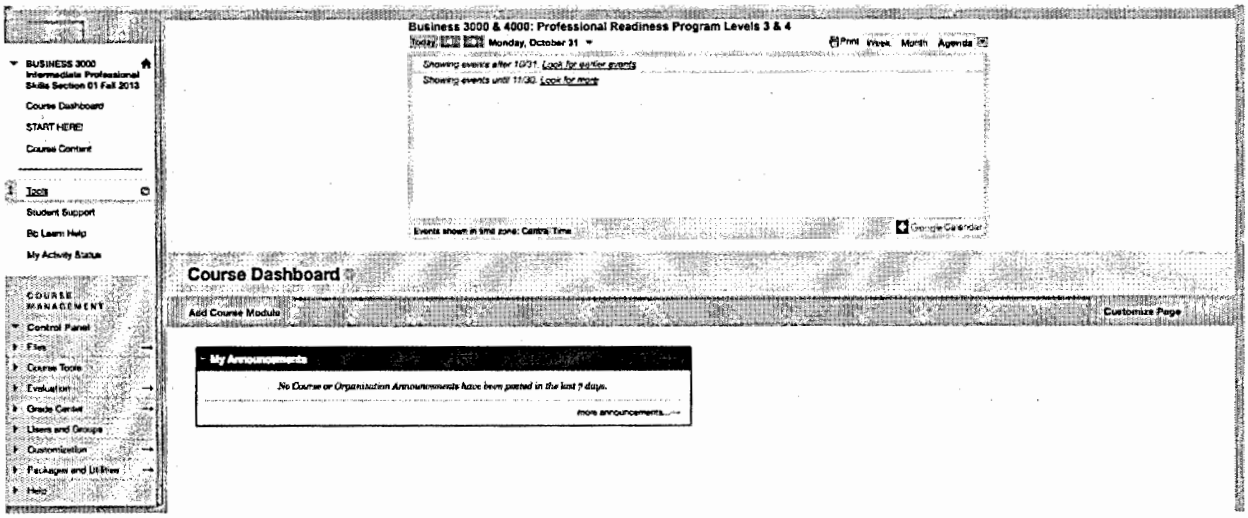

Figure 3: Business 3000 course homepage.

Implementing the Course

Building a learning community. I started a small learning community of faculty, staff, and developers which required them to log into Blackboard daily. I told them I wanted them to get a feel for the templates and give me feedback weekly. This led them to talking with each other about the issues they had with Blackboard. As we moved along, I was able to collect data on which necessary skills for operating the online courses were lacking. Posting/editing videos, content releases, and adding materials to the courses were all universal areas of weakness in the learning group.

Training. The formal evaluations, completed at the end of each of the ADDIE phases, were used to ensure that the project always met the expectations of the course. When gaps were identified, it would be necessary to provide instructors with the appropriate training to assist faculty and staff

During the formal assessment of the analysis phase, I wanted the faculty and staff to feel like their concerns were being listen to and that they were part of the solution to

overcoming these issues. This developed the educators' involvement and allowed me to introduce new technology and concepts without overwhelming the faculty and staff. As the designer, I walked them through what was going to be expected of them in the coming months and assured them that it was possible to complete these tasks with the time limit. The design committee approved the move to the next phase.

I knew going into this project that the educators wanted to have access to the benefits of Blackboard (online structure, accountability, and giving both students and faculty the ability to for from anywhere) but they were not excited about having to learn to use the program. Different ability levels, time to devote to learning/training, integrating different technology into Blackboard in a meaningful way, and managing the frustration of learning a new software were all factors working against integration. It became clear that I wasn't going to be able to teach them every aspect of Blackboard along with helping instructors build materials, and working with them on developing better online eccentric pedagogy. It was decided that I would help them with the basics of blackboard, develop templates to create an online classroom structure, build learning materials, and launch the next semester of classes. Any skills that were lacking once my internship had concluded would be addressed by Informational Technology Services (ITS).

I met my goals and objectives that were set in the analytic phase. Goals and objectives were determined in the analytical phase. The outcomes needed to be measureable. I wanted the faculty and staff to have the ability to:

1. Navigate the interface and be able to intuitively locate class materials
2. Be able to add and remove course learning materials

3. Be able to use the anti-plagiarism tool *Turnitin* without having to leave Blackboard
4. Be able manage new and current assignment release conditions
5. Be able to make announcements, modify the calendar, and generally inform students about important matters through Blackboard
6. Be able to record speakers, edit, and upload to Blackboard
7. Be savvy enough users to construct a face-to-face introductory class to introduce student to Blackboard

Most of these outcomes were accomplished one-on-one or through the learning community, but I also provided large group instruction. Uploading and editing videos were a problem for most of the faculty and staff. I modeled a flipped classroom approach. I used Blackboard to provide access to instructional videos that described how to upload and edit videos.

In three separate trainings, the faculty and staff first watched the videos and came with questions and frustrations. All three training sessions started with going through the questions and any frustrations. From there, I had the group work together to guide a selected participant through the task for each lesson. After watching someone else complete the task, each of them demonstrated their mastery to me before leaving the training session. This last assessment was done outside of class with a deadline. If a faculty or staff member couldn't complete the task, I provided one-on-one training.

Outcome

As a whole we were able to find success for each of the goals of the instructional design project. The template for the introductory courses served as a great place to

start the design conversation. It allowed for flexibility to change to meet the needs of the online independent courses without having to start from scratch - lowering anxieties and technology know-how from faculty and staff. The front page of each course allowed students to custom add events directly to their personal calendars, check if something was missing, and clue them into big upcoming events. Lastly, the digital drop boxes worked great for assignment collection. Allowing students confirmation their work was collected and faculty and staff the ease of collecting, grading, and checking for plagiarism.

Limitations

During the project, I made an assumption that ended up negatively affecting the project. I assumed that the faculty and staff were motivated to learn. While in implementation phase I didn't evaluate the faculty and staff's understanding of some of the video editing and blackboard functions. This led to them not using the functions when I wasn't able to support the project. They hired me on as a part time designer after the internship ended for support reasons. This is when I should have realized there was a failure in my design. I was too focused on the learner's reaction and from this perspective the project was a success. Students seemed to respond positively to the new format. They were engaged. Early reports showed that students found the templates easy-to-use and generally a step up from what was provided in the past, but when I left the university, the program heads could upload or edit videos but forgot how to release dated content. The newly strengthened relationship with ITS helped, but as the course continued it did lose features.

I also took incomplete and inconsistent notes of the project. It never even occurred to me to collect data on the project. I have tried several times to follow up with the program head, with whom I still have a positive relationship, to find that they didn't keep any of the data of what worked and what didn't. Generally speaking, the courses are still online with most of the features, and the pedagogical approach is still being used, but without hard data it's difficult to know what caused the success of the new format.

Conclusion and Recommendations

The project as a whole was a success. We converted the Business Readiness Program (Business 1000,2000,3000,4000) from only being delivered in a face-to-face format, to versions that are blended, flipped, and online only. We chose the pedagogy that matched best with the content. This allowed me to introduce the new technology and the training needed to fully integrate the technology. The faculty enjoyed the idea of new pedagogical approaches to the classes and fully embraced the training and the concepts, but what they really appreciated was the accountability it put on the students to complete work, checking for plagiarism, and making the course more accessible to students. These new approaches allowed students to tailor the experience to their major and make the learning more impactful.

I still use a lot of the concepts I used in this project in my professional life. Learning community building, ADDIE, making new technology relevant, measurable outcomes and the TPACK model are things that have made me a stronger designer. The ADDIE model is how I construct learning tools and manage projects. It breaks the

project down into phases and still leaves room for flexibility to change and adapt to the project or learning tool as it develops.

While one of the most successful and beneficial parts to the faculty and staff was developing a functional learning community, I recommended strongly to the program director to keep fostering the idea of a learning community. Not only within the readiness program but in the COB along with other organizations outside of UNI. The program would need both time and resources to keep growing the learning community that was developed during my time with the program.

If I were to do this project again, I would use the Successive Approximation Model (SAM). This takes the ADDIE model and starts to blend the phases together. In the field, I find myself using SAM more than ADDIE. It is more practical and beneficial when working with multiple people and departments. It allows me to keep a project moving while waiting for information, materials, or committee decisions.

I would also urge the groups to keep evaluating the course, pedagogy, and learning community so that the course does not stagnate. Basic ADDIE training would help them keep this course in the shape it needs to be in order to keep providing the level of instruction needed to reach students. The educators need to learn, grow, and develop new skills to keep a course relevant and engaging for students. They need the professional support from instructional designers.

As a new instructional designer, this project provided me the best opportunity to learn how important developing buy in is, develop professional voice, and allow me to refined my project management ability. I found it fascinating how intelligent, motivated, and creative adult learns weren't open to the idea of learning about new anagogical

technics and technology approaches - even when the research peer reviewed and from a credited source. There was a lot a fear there and it became clear early on I needed to have the ability to reach them before we could redevelop the class. This experience also helped be develop my professional voice. It allowed me to talk to other professionals about instructional design and feel confident in my content. Lastly, it helped me refine my project management skills. This project grew from working with four courses in the college of business to working with several different faculties all with different subjects and needs. This allowed me to get real world experience with ADDIE. These three skills are the foundation to my instructional design method and have shaped me as a designer.

References

Carle, A. C., Jaffee, D., & Miller, D. (2009). Engaging college science students and changing academic achievement with technology: A quasi-experimental preliminary investigation. *Computers & Education, 52(2),* 376-380.

Croxton, R. A., & Chow, A. S. (2015). Using ADDIE and systems thinking as the framework for developing a MOOC: A Case Study. *Quarterly Review of Distance Education, 16(4)*, 83.

Ertmer, P. A. (2005). Teacher pedagogical beliefs: The final frontier in our quest for technology integration. *Educational Technology Research and Development, 53(4)*, 25-39.

Hsu, T. C., Lee-Hsieh, J., Turton, M. A., & Cheng, S. F. (2014). Using the ADDIE model to develop online continuing education courses on caring for nurses in Taiwan. *The Journal of Continuing Education in Nursing, 45(3*), 124-131.

Koehler, M. J., & Mishra, P. (2009). What is technological pedagogical content knowledge? *Contemporary Issues in Technology and Teacher Education, 9(1)*, 60-70.

Liu, S., Tsai, H., & Huang, Y. (2015). Collaborative professional development of mentor teachers and pre-service teachers in relation to technology integration. *Educational Technology & Society, 3*, 161.

Ngussa, B.M. (2014). Application of ADDIE model of instruction in teaching-learning transaction among teachers of Mara. Conference Adventist Secondary Schools, Tanzania. *Journal of Education and Practice, 5(25)*, 1-11.

Ozdilek, Z., & Robeck, E. (2009). Operational priorities of instructional designers analyzed within the steps of the Addie instructional design model. *Procedia-Social and Behavioral Sciences, 1(1)*, 2046-2050.

Shibley, I., Amaral, K. E., Shank, J. D., & Shibley, L. R. (2011). Designing a blended course: Using ADDIE to guide instructional design. *Journal of College Science Teaching, 40(6)*, 80-85.

Yau, H. K., Cheng, A. L. F., & Ho, W. M. (2015). Identify the Motivational Factors to Affect the Higher Education Students to Learn Using Technology. TOJET: The Turkish Online. *Journal of Educational Technology, 14(2).*