ABSTRACT
This is a qualitative reflective study on the challenges encountered by the department chairperson in an accelerated degree program (ADP) that delivers mobile/online learning courses as its primary mode of undergraduate instruction, over the course of two years. In other words, this is a critical analysis of ADP and how mobile/online courses are developed. The central problem is the development process of mobile/online learning courses and interactions between three key areas, over a two-year period. Periphery challenges arising in the study of the central problem are also addressed.

The central problem is the feedback cycles between the key areas involved in course developments. The key areas are the subject matter expert (SME), the department chairperson that serves as the adult learning expert, and the instructional designer that plays multiple roles between serving as an adult learning expert, a technical expert, and an expert of mobile/online learning. The mobile/online course feedback cycle from a single course development produced countless, confusing and time-consuming emails with attachments to manage, that has been a source of repeated errors and inefficient use of time and resources for all involved.

While critically analyzing the experiences over the last two years, problems that reside in the periphery emerge related to adult teaching and learning (Knowles, 1970; Armstrong, 2014), such as the complexity of transforming a subject matter expert into an educator of mobile/online courses. Although the problems in the periphery emerge, the focus of the study remains the process of mobile/online course development, as the solution provides a mechanism to address the central and related periphery problems.

As a practitioner in adult education and learning, the department chair collaborated with the instructional designer to find a solution to manage future mobile/online learning course developments starting at the beginning making progress towards a more effective and efficient mobile/online course development process and experience. The focus of the reflective qualitative study is on the problem and its solution of a simplified, yet effective, development of mobile/online courses in an accelerated degree program. The study finds that a centralized mobile/online space to manage course developments helps to serve the growing demand for mobile/online courses and learning, by removing the cumbersome and clumsy barriers for an efficient mobile/online course development process.

ADP is an undergraduate degree program that houses eight major programs of study and one certificate program. ADP is part of the College of Innovation and Professional Programs in a faith-based university, located approximately a five-minute drive in a nearby suburb of Chicago, Illinois, in the United States of America.

Author Keywords
Online course development, Mobile course development, online course design challenges, mobile course design problems, subject matter expert (SME), educator, teacher, instructor, adult learning, online learning, mobile learning

INTRODUCTION
Research Question
How can the course development and design process be improved within an adult accelerated degree program at an American Midwestern university?

Paper Purpose
The purpose of the paper is to share the challenges faced in developing and designing a quality mobile learning course experienced in an accelerated degree program at an American Midwestern university over the course of 2 years from the perspective of an adult educator who serves as the department chair of an adult accelerated degree program. This paper highlights the discoveries and lessons learned from a reflective, qualitative study about a new piloted process developed in response to the challenges encountered within this period.

Problem
The purpose of this study was to help address the problem in the development and design process of quality mobile learning courses that had surfaced time and time again. The central problem was the collaborative feedback cycle involving three key areas: (1) The subject matter expert (SME), (2) the instructional designer (ID) and (3) the department chair (DC). The feedback cycles between the key areas involved in course developments such as the SME, who include adjunct and full-time faculty, the department chairperson that also serves as an adult learning expert and the instructional designer...
designer, who plays multiple roles between serving as an adult learning expert, a technical expert, and an expert of mobile/online learning.

What is the feedback cycle? The researcher defines this as the process of collaborating at a distance while providing feedback on a syllabus among three key persons: The SME, ID, and the DC. The feedback cycle for a single mobile course development produced countless, confusing emails with attachments that were time-consuming to review and all had to be managed. Each time, a course was developed or revised, it became a source of repeated errors and inefficient use of time and resources for all involved. For example, the SME would send out a syllabus asking for feedback from both the DC and ID. During this time, the DC and the ID provided feedback using comments throughout the document in addition to notes in the body of the email message. In this process, multiple iterations of the syllabus were created. Sometimes, the DC and ID would join the documents into one and offer feedback in one document. However, because this process was cyclical, the second, third, fourth cycle of feedback became clumsily confusing. As the syllabus was emailed to the SME and then sent from the SME to the DC and ID, and then the document file was named, renamed, over and over again, it required laser focus and time to track properly. Then, when it was believed that a final syllabus was ready for use in the building of the course for the learning management system platform, in this case, Blackboard, it was discovered that the document that had been identified as the final version, may not have been so. In fact, it became clear that the latest version of the syllabus was not being used, but had been lost in the feedback cycles of naming and renaming files and sending attachments back and forth among three persons. It then became a process of tracing back the threads of emails among the series of emails, among the inbox full of a variety of other emails, in the search for the version that was believed to be the latest version. Hence, the title of this paper, Mobile/Online Course Development Simplified: “Is this the latest version?”

LITERATURE REVIEW

There are two bodies of knowledge that are related to this study. The first being the most apparent literature related to the development and design of mobile learning courses or online education (Barbera, Garcia, Fuertes-Alpiste, 2017; Bovill, Cook-Sather, Felten 2011; Sanga, 2017)

Barbera, Garcia, Fuertes-Alpiste (2017) and Boville, Cook-Sather, Felten (2011) focuses on a similar concept to the feedback cycles addressed in the study presented here. The concept of co-design is presented and used as the framework to explain, understand and improve the development and design of online courses. In the co-design process, there is room for multiple players in the development of a mobile learning course that extends beyond the subject matter experts, and the instructional designer. In this process, for example, there is space for the students. Perhaps, this is another perspective to consider as this is an iterative process striving for continuous improvement in the future.

In the Sanga (2017) study, it specifically asked "what design and pedagogical issues did faculty members encounter while developing online courses in their area of expertise? (p. 13)". Sanga (2017) implies that the process involved only two persons, the faculty member, in other words, the subject matter expert and an instructional designer. The research question in and of itself suggests the two bodies of literature, or rather the two facets embedded in the problem that is being studied by the researcher. The central problem related to the design and process is the focus of this study, while the emerging problems in the periphery related to adult teaching and learning are secondary.

Sanga (2017) categorizes findings into six areas related to the development and design of courses: Writing measurable objectives, modularization, active learning organization, assessment communication, student participation expectations, and course technology. The categories suggest similar issues emerged as distinct problems in this reflective study. Specifically the technical process and design of a course and the periphery problems that related to adult teaching and learning. Sanga (2017) also implies the need to prepare subject matter experts as educators. This aligns with this reflective study in that it is the belief of the researcher that a SME acquires a few discrete skills necessary to best conceptualize a course for mobile delivery.

Chen, Lowenthal, Bauer, Heaps, Nielsen (2017) make note of the literature in the landscape related to the development and design of mobile/online courses where it notices that the process across different institutions either have a centralized approach or decentralized approach to developing and designing courses. Their research addressed how to best prepare the faculty to undertake the course development and design via an online professional development course. It examined the time, and level of engagement faculty took in the course regardless of the approach to the development and design of courses, whether centralized or decentralized. This research also showed how subject matter experts, in other words, faculty experienced and expressed new perspectives and understanding came about after a professional development course that helped to train them to develop and design mobile learning courses. The university where this study was completed also requires an online course to help faculty understand the expectations, landscape, and evolution of the mobile learning. However, the focus is on preparing faculty to teach mobile learning courses, rather than developing and designing the mobile courses.

In sum, in conducting the literature review, the focus was on research under ten years old that most closely related to the problem studied here, the researcher acknowledges interesting findings about their respective processes of the management of mobile/online learning, development and design (Barbera, Garcia, Fuertes-Alpiste, 2017; Bovill, Cook-Sather, Felten 2011; Sanga, 2017 Chen, Lowenthal, Bauer, Heaps, Nielsen 2017), but no literature was found related
specifically to the problem that is the focus of this study. The studies focus on larger systemic issues but fail to delve into the practical and the systematic steps taken in the development of a mobile course. At times, when co-design is discussed (Chen, Lowenthal, Bauer, Heaps, Nielsen, 2017) for example, it stills does not outline the process to the smallest unit of measurement of sorts, as this study has addressed, starting with the feedback cycle in an email. In Abdous and He (2008), as noted by the title of the article, "Streamlining the Online Course Development Process by Using Project Management Tools", this provided solutions that conceptually related to the solution developed in this study. However, it focused on specific project management software, whereas this study's attempt at addressing the problem used resources immediately available and at no additional cost at the university using the learning management system currently place, Blackboard.

The second body of knowledge related to this study is that of adult education, teaching, and learning (Armstrong, 2014; Knowles, 1970). Both bodies of knowledge help to frame the researcher's understanding of the problem that prompted the research question and those problems in the periphery of the central focus of this study, such as the complexity of transforming a subject matter expert into an educator of mobile courses. In Bloom's taxonomy (Armstrong, 2014) it provides the building blocks and knowledge base to introduce a SME into becoming an educator and is a central piece in the syllabus created by the ID to help lead the new piloted process.

METHODOLOGY
As a practitioner in adult education and learning, the department chair collaborated with the instructional designer to find a solution to manage future mobile/online learning course developments starting at the beginning, in an effort to progress towards a more effective and efficient mobile course development process and experience. The researcher conducted a reflective qualitative study. The focus of the reflective qualitative study was on a simplified, yet effective, development of mobile courses in an accelerated degree program. In response to the problem, a centralized mobile/online space and process to manage course developments were created to help serve the growing demand for mobile/online courses and learning. This new space and process removed the cumbersome and clumsy feedback cycle through email and replaced it with an efficient mobile/online course development process housed within the university's learning management system, Blackboard.

The instructional designer created a separate group in Blackboard, similar to the organization of a mobile learning course. A syllabus was created that thoroughly explains the process of a mobile course development and each required component that is needed for a complete course. It provides examples and sample language that the SME can incorporate into the design of their syllabus. It further then asks the group to submit parts of the syllabus as an assignment, per the directions of the syllabus. Each assignment represents the submission of a component of the syllabus for developing the mobile learning course. The ID provides formative and summative feedback on each submission. The SME enters the feedback cycle and continues to work on the assignment until the ID approves. Once the SME has submitted all of the components of the syllabus to the satisfaction of the ID, the DC is alerted. The DC provides feedback on the organization of the syllabus, the learning activities, academic rigor and expectations alignment with the accelerated degree program curriculum. The SME may enter the feedback cycle again here. After the SME makes revisions, and the DC approves, the ID is alerted that the syllabus is acceptable and can be built into a master shell template in Blackboard.

RESULTS/DISCUSSION
After following the new space and process of mobile learning course development for the first round, the DC and ID reviewed and debriefed on the process. Upon reflecting on the experience, the researcher found the following benefits: There was a centralized location for feedback eliminating the creation of multiple versions of the syllabus and the confusion previously experienced with the emails. The actual design of the modules set a timeline for completion expectation that prior to this pilot, did not exist. In fact, there had been several instances where SMEs had been contracted to develop or revise a course and would emerge within a week or two of the scheduled deployment for the course causing havoc and strain on the ID and DC resources to review the course and make it available under considerable pressure and time constraints. This new piloted process and space helps to manage time and the development of the syllabus by the SME to be completed within a reasonable timeframe. An additional benefit with the new process has been that the syllabi produced were more complete and had better components when compared to the former process of feedback via email. Not only was the space that was created a benefit, but the additional educational component that the ID included as a means to teach the SME how to become an educator was advantageous. It sought to introduce the SME to the elements needed in a mobile learning course and the value of the having such components from an instructional design perspective, as well as from an adult learning perspective.

In contrast, the researcher also experienced several unexpected negatives or disadvantages. The new process and group used in the LMS were created with the SME as the focal point, with the goal of reducing the confusion and inefficiency between the feedback cycles among the three roles, ID, SME, and DC. However, what was not discussed at the onset of the pilot was how to approach and manage the timing of the feedback for each module. As a result, the DC initially believed the process had become more chaotic and demanding to manage, needing to check the work of the SME as many if not more times than previously experienced. After discussing this with the ID, it was agreed that the ID would provide feedback on the components required for the syllabus, such as the rubrics, and quick guide (that is an abbreviated version of the syllabus), before presenting as complete as possible a syllabus to the DC for review. Another unexpected
challenge was knowing when the SMEs submitted work in the modules. There were numerous SMEs being managed. Unless the ID or DC logged into the group and looked for submissions by the SMEs, there was no automated mechanism to alert the ID or DC of a submission. Consequently, both DC and SME have since synchronized efforts to alert each other via email of any submissions or new course developments as each proactively checks the group. Research on a more automated technical solution was discussed and is being explored for future consideration.

After another round of mobile learning course developments and the deployment date approached for the courses, another issue emerged. Managing the development of multiple mobile learning course developments by the same SME? The Blackboard groups are organized similarly to a class in that a SME is enrolled into the group and added to the group's roster. A single SME is connected to columns of multiple assignments/activities. However, if the SME was tasked with more than one mobile learning course development, then it would cause confusion, since the SME was already enrolled into the group, but had two courses to work on. In an attempt to address this unexpected issue, the ID created a new group and expects to continue creating new groups assigned by semester. For now, this has addressed the issue because the courses being developed were to be deployed during different semesters. Nonetheless, the issue may still arise where one SME will develop more than a single course that should be deployed during the same semester. Therefore, a full solution is still being conceptualized between the ID and DC.

CONCLUSION
This reflective qualitative study has shown that deliberate efforts and interventions focused specifically on the components needed to support a quality mobile/online learning experience in the development of a syllabus via an organized process with clear and efficient communication between the SME, ID, and DC, can produce a positive experience for those involved in course development and ultimately, a better-delivered learning product for students. The problem that prompted the piloted process and program has been addressed and resolved. However, with the benefits of the new process, there have also emerged new challenges that need to be addressed, such as technical automated alerts when work has been submitted by SMEs and how to reduce the reliance on email to make alerts on the progress of a course development. Research on the SMEs that have used the piloted process needs to be collected, to better understand their experience learning from the new process and make adjustments as needed. Further research is needed to consider including the student perspective in mobile learning course development. How could that be achieved? What form would it take? Could alumni serve in this capacity or is there greater benefit from current students enrolled all need to be more closely considered. Expanding the use of the pilot process with other departments university-wide, and then evaluating the progress, experience and outcomes are also steps for the future to consider.

Finally, the applicability of the findings in this reflective study should be considered at other higher education institutions, because it addresses the periphery problem of making a “teacher” out of a subject matter expert that is a common problem in higher education in traditional face to face classrooms. This systematic approach to help a SME develop the syllabus for a mobile learning course provides the building blocks and foundational skills needed of any educator of adults or students.

REFERENCES


